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Special Contributors for 1866

DR. E. S. HULL,
WILLIAM MUIR,
CAREW SANDERS,
FRANCIS QUIWITS.

COLMAN'S RURAL WORLD,

Is devoted to the promotion of the
AGRICULTURAL, HORTICULTURAL AND STOCK
INTERESTS OF THE VALLEY OF THE MISSISSIPPI.
It is issued on the 1st and 15th of every month, in
quarto form, each number containing 16 pages, mak-
ing a volume of 384 pages yearly. Terms—\$2.00 per
annum in advance; Four copies, \$6; Ten copies \$15,
and a Premium of Five Concord Grape Vines to any
one sending the names of Four subscribers and \$6;
and Fifteen Concord Grape Vines to any one sending
the names of Ten Subscribers and \$15.

ADVERTISING TERMS.

A few appropriate advertisements will be inserted
in the "Rural World and Valley Farmer," at the
following rates: One square (being ten lines of this
type or an inch in depth), each insertion \$2; One
column, one insertion, \$15; and \$10 for every addi-
tional insertion. One-half column, one insertion, \$8;
two insertions, \$15, and \$6 for every additional in-
sertion. These rates will be strictly adhered to.

HAY MAKING.

As no single crop in the United States equals
in value the grass crop for pasturage and hay,
it is important to inquire at what period grass
should be cut, and to practice the modes of cut-
ting the hay that will insure the greatest pro-
portion of nutritive matter.

Although farmers differ in their opinions and
practice in regard to the proper time of cutting
grass, yet scientific investigations would seem
to leave but little doubt upon the subject. The
nutritive properties of the grasses consist
chiefly in albumen, gum, starch and sugar.—
The question then is, at what period do they
possess them in the greatest perfection? A
correct knowledge of vegetable growth and de-
velopment would fix this at the period of matu-
rity of the stem or at the time of blossoming,
and this is confirmed by chemical analysis. The
object of nature is the maturity of the seed, for
the production of its kind. When the stem has
attained its growth, it abounds in the properties
for the maturity of the seed, and if the seed
are allowed to ripen, the stem is deprived of a
large proportion of these nutritive properties,
leaving little else than woody fibre.

An objection to this rule is urged by many
in favor of Timothy, and experience proves not
without some substantial reasons, and these
reasons apply with more force to the farmers of
the South and West, than to those occupying
sections of country more naturally adapted to
the grasses. In Northern Europe and the cold-
er portions of the United States, there is a
much larger variety of grasses cultivated than
are adapted to our Western climate and where
this rule is more universally applicable. In
those countries, if grass is cut about the time
of flowering, the hay is not only more nutri-
tious and palatable, but a luxuriant aftermath
is secured which is greatly impaired in value
if the cutting is deferred until the grass has
matured its seed. But in the West, Timothy
constitutes the principal grass grown for hay,
and it is claimed by many intelligent farmers
that when it is permitted to stand until the seeds
begin to fill, or approaching maturity, the hay
is not only more nutritious and fattening, but
that stock eat it with a better relish than when
it is cut at an earlier stage of its growth. This
opinion has been sustained by Mr. Sinclair of
England, who said: "that in point of nutritive
matter the ripe crop greatly exceeds the crop
at the time of flowering," but he does not give
the reasons for this conclusion. We think it
may readily be traced to the large quantity of
seed produced by this grass. In this respect it
may almost be ranked among the grains. The
yield is often as much as fifteen or twenty bush-
els, and sometimes reaches thirty bushels per
acre. In weight it is greater than oats and
but little short of corn, and is very rich in far-
inaceous or fattening properties, yet it is not to
this quality alone in Timothy that the excep-
tion to the general rule of cutting at the time
of blossoming must be attributed. But there are
other and more important reasons why this va-
riety of grass should be allowed to stand to a
later period before it is cut. The roots of Tim-
othy differ from all other cultivated grasses, being
less fibrous and more of the bulbous character.
It is in these bulbs that the vitality of the plant
is contained during winter, and they cannot ar-
rive at perfect maturity, which is necessary for
the health and perpetuity of the meadow, if
the grass is cut before nearly ripe. Another

reason may be given in favor of permitting Tim-
othy to stand until it is more matured, and
against the general rule—it produces little
or no aftergrowth, and the roots are liable to
injury from the dry weather and burning sun
that usually follow harvest in our Western cli-
mate. For this reason regard should also be
had, in cutting, that the machine be not
allowed to run too low, but let it be so adju-
sted as to leave at least three inches of stubble
upon the ground for the protection of the roots.
We are confident that our Timothy meadows
are too often injured for want of proper care in
these respects, and particularly in allowing the
stubble to be grazed and trampled upon by stock
during fall and winter. All other grasses will
bear this better than Timothy.

As we have said, the grasses generally at-
tain their full development at the time of flow-
ering, and then possess the highest percentage
of soluble materials—viz: starch, sugar, gum,
&c., while the mere stem or woody fibre princi-
pally serves as the medium of conveying these
substances to the digestive apparatus of the an-
imal, and for the purpose of distension and
healthy digestion. For this reason, we would
urge the importance of cutting orchard grass,
red top, and clover at the time generally pre-
scribed, as their seeds are of but little value of
themselves as food, while the aftermath will be
materially increased by early cutting.

CURING HAY.

In order to secure the nutritious properties
of grass in the greatest degree of perfection,
special care must be taken in curing. Expo-
sure to rain and dews is most injurious to hay,
and the object should be to cure it and get it in
in the least possible time. If the weather is
favorable, one good day is sufficient to cure all
hay, except perhaps clover. Grass that is cut
in the morning should be got in before night.
If the weather is unfavorable, and it has not
parted with its moisture, it should be cocked
up at night and left in heavy winrows, and
opened again in the morning, and as soon as
the moisture has dried off it should be hauled
in.

CLOVER.

In order to make good clover hay, it will

not bear that exposure to the sun and air that grasses, proper, will; for if dried to much its rich juices escape, and the leaves, which are the most tender and valuable part, crumble and fall off. The object should be to cure it as much in the cock as possible, leaving it exposed to the sun only so long as is necessary to allow it to wilt a little, and expel the external moisture. As a general rule, clover that is out in the morning, may be put up in cocks by night, and that which is out in the afternoon should lay until the morning dew has escaped, and then be immediately cocked up. The cocks should be small, and usually in about four days the hay will be ready to haul in. On the last day the cocks should be turned over that the dampness at the bottom may escape. When clover hay is stacked or put away in the barn, its quality will be improved by the application of about two or three quarts of salt to each ton. The salt also checks the liability to heat, and on this account may be stacked earlier than when no salt is applied. Clover hay well cured is liked by all kinds of stock and for milch cows is much better than Timothy.

VICES OF HORSES.

Idle horses, or those not working very hard, are apt to acquire habits that are very annoying, as crib-biting, weaving, pawing, dislike to go through a doorway, kicking the sides of the stall, &c. The first is considered by many unsoundness as well as a disagreeable habit, and they would reject a horse, no matter how good, or ever so well suited to the business they wanted him to perform, if he possessed this trick. I do not look at in this light, and apart from the annoyance of listening to the sound usually made by those addicted, I am not aware that it injures the animal. The idea that they "suck wind" enough to make them any more liable to colic or rupture of the intestines, is certainly false in all that have come under my observation. One of the finest "Gentleman's Horse" I ever knew was a confirmed crib biter. He was a large, brown gelding, nearly sixteen hands high, stylish and showy, had trotted in 2:28, could pull a wagon almost that fast, gentle and reliable in every place. If there was anything he could lay his teeth on he was sure to crib, yet always kept easy; would stand an immense amount of work and trot long distances, never, to my knowledge, sick a day in his life. The last I knew of him he was owned by a gentleman in Cincinnati, who valued him very highly for his many good qualities. When horses have once acquired this habit, I doubt if they ever forget it. By having a box or stall sealed up perfectly smooth they cannot get hold of anything, and few horses will crib if thus kept, though some press their teeth against the smooth side and accomplish it. There is a muzzle made through which horses can pick up their feed without being able either to bite or get hold of anything with their teeth. It is made with two small iron bars, joined to the nose band of the halter, far enough apart to allow motion of the lips sufficient to pick up their food.

Weaving is another very perplexing habit, acquired from, I know not what, and once learned I could never cure. Fretful, high tempered horses are most prone to acquire it, and when at full work generally quit of their own accord. Some horses cannot be easy till they have pawed their bedding quite out of the way, leaving them a bare floor to lie on, soiling their clothes and hair in a manner not very agreeable to the groom, his duties thereby being much increased. Turning loose in a box will some-

times cure this evil, or a clog is fastened above the knee. When this is done there should be a pad applied to the shin, to keep the clog from injuring the very sensitive membrane covering the tendons. From having been led carelessly through a doorway, where they have been injured, horses are afterwards fearful of attempting the passage, and when urged to do so will go through with a bound that adds greatly to the danger. Compel the groom to get the horse square with the door before leading him out, holding him firmly by the halter, so that the leap cannot be made, never urging him to go faster than the slowest pace; in no case permitting a blow to be given. Rather than use force, either blindfold or back them out, until the fear is overcome by judicious usage.

Kicking the sides of the stall is a very unfortunate custom some horses possess, and no amount of punishment will cure one that has become determined in the practice. Clogs and whips are of no avail, and there seems to be almost a species of insanity compelling them to kick away till their legs are bruised and swollen from the blows. I had one very fine horse that I tried every method of cure I could hear of without effect. When he was shackled of course he could not kick, neither could he lie down, and I have kept him standing for a week, when in less than an hour after the straps were removed he would fall to kicking as furiously as if the lost time had to be made up. I cured him by putting him in a stall about the width usually made in livery stables, the sides of the same length of the horse when standing with his head at the manger. A bar was dropped behind his quarters to keep him from backing. Through the sides of the stall a slot was cut large enough to admit a plank two inches thick and eighteen inches wide. This plank came within half an inch of his loin, and of course he could not raise himself to kick. It was amusing to watch the rage he would get in, in finding his most violent efforts frustrated. I looked for him to strike with one foot, and intended, if he had done so, to let a shelf extend on each side as high as his gaskins, which would have prevented that. The plank over the loin, however, cured him, and after going from my stable into a stall that had not these appliances, I never heard of his relapsing into his former bad practice.

Macoupin County (Ills.) Shearing.

ED. RURAL WORLD: I could not procure a copy of the proceedings of our shearing owing to a heavy rain in the evening. As the Secretary left for home, and I failed to get it, I send you copy from the *Prairie Farmer*.

Considering the number shorn, this shearing makes an average higher up in the figures than any heretofore in the West or East. Five Bucks sheared over twenty pounds.

Since the shearing, A. Ballinger sold A. J. Uhl a two year old buck from R. H. Ballinger's "Prince" for \$150, that was not at the shearing. He was recently clipped twenty-four pounds. M. S. Ballinger, in Greene Co., has a two-year old buck, sired by "Prince," clipped twenty-one and a half this year.

Some of our best sheep were not at the shearing, which is to be regretted. There were no coarse wools on the ground.

Several of our flocks are going to Missouri this fall. Among the number going are—M. S. Ballinger and A. J. Uhl, the former with a flock of over 1000 to Daviess Co., and the latter some 1500 to Johnson Co.

I shall be at your fair with all my stock.

Nitwood, Ill.

R. H. BALLINGER.

The meeting at the Fair Ground in Carlinville, Macoupin County, Ill., June the 5th, '86, was called to order by Geo. Fishback, President of County Agricultural and Mechanical Society, and upon motion, Mr. J. H. Loomis was chosen Chairman and S. T. Hopson Secretary.

On motion two committees were appointed as follows:

Committee on Weights, Wm. Gill, James M. Cann; and Committee on Condition and Quality of Sheep and Wool were S. B. Corey, Jacob Christopher and A. J. Uhl.

The following is their report:

| Owners. | Name and Sex. | Age. | Wt. Carcases. | Wt. Fleeces. | Age of Fleeces. | Housed. | Remarks. |
|-----------------------|---------------------|---------|---------------|--------------|-----------------|--------------------------|--|
| R. H. Ballinger. | Prince, buck, | 7 yrs. | 100½ lbs. | 22½ lbs. | 12 mos. | Housed. | Finest staple shorn. Thirty-four square inches shed on account of sickness. |
| R. H. Ballinger. | Silverface, ewe, | 3 " | 71½ " | 11½ " | 12 " | " | Purchased of E. Hammond, of Vt., for \$1000. |
| R. H. Ballinger. | No. 1—ewe, | 3 " | 72½ " | 16 " | 12 " | " | Suckling Lamb. |
| R. H. Ballinger. | No. 1—ewe, | 3 " | 78 " | 14 " | 12 " | " | Suckling Lamb. |
| R. H. Ballinger. | Princess, do. | 3 " | 90 " | 10½ " | 11 " | " | Suckling Lamb. |
| M. S. Ballinger & Co. | Nettie—ewe, | 4 " | 77½ " | 10 " | 11 " | " | Suckling Lamb, and in rain in April. |
| Geo. Fishback. | Little Wooly, buck, | 4 " | 94 " | 20½ " | 13 " | 5 days. | Fleece cleaned by drenching rains before shearing and previously tagged. |
| F. Winters. | Woody, buck, | 3 " | 134½ " | 30 " | 12 " | 5 " | Extra fine white yolked wool, superior staple, form well developed. |
| F. Winters. | Gorham, " | 4 " | 152½ " | 21½ " | 11 " | 5 " | Healthy constitution, and perfectly docile. |
| F. Winters. | Frank, " | 3 " | 114½ " | 20½ " | 12 " | " | Sired by R. H. Ballinger's Prince. |
| H. G. Robley. | Jake, " | 2 " | 123 " | 16 " | 12 " | " | Good well-developed constitution. |
| H. G. Robley. | Prince, " | 2 " | 102½ " | 14½ " | 12 " | " | Sired by Prince. The Committee recommend them as a desirable class of sheep. |
| A. Ballinger. | Pink, " | 13 mos. | 62 " | 14½ " | 13 " | Not housed since Mar. 1. | |

SPANISH MERINO BUCKS AND EWES.

DOG LAWS.

ED. RURAL WORLD: The question as to the proper enactment of a law regulating the keeping of Dogs, has of late been much discussed, and created considerable interest. I am a great friend of that docile and faithful companion of man and guardian of our homes; but am uncompromisingly opposed to the running at large of worthless curs and of dogs whose education and training have been neglected by unworthy owners. I propose to submit to our Legislature, for their consideration and enactment, a dog law, a copy of which I send you.

St. Clair Co., Ill. W. B. ENGBLUMANN.

DOG LAW.

Be it Enacted, &c.

1. Any responsible person may keep a dog or dogs, and his or her property in such dog or dogs, shall be the same as in other domestic animals.

2. Any dog running at large beyond the control of his master, may be killed. Dogs used for hunting, which are out with their master and become separated from him while running or tracking game, shall always be considered within their master's control, without regard to the distance they may have become separated from him. The word "master" shall not only designate the owner of a dog, but all persons using the dog with the knowledge or by consent of the owner.

3. Any dog chasing domestic animals beyond the limits of his master's possessions may be killed.

4. Any dog attacking or assaulting any person on his own premises, or on any public road or highway, by biting, barking, or jumping at him or his horse or vehicle, may be killed.

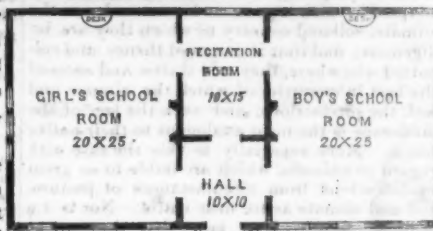
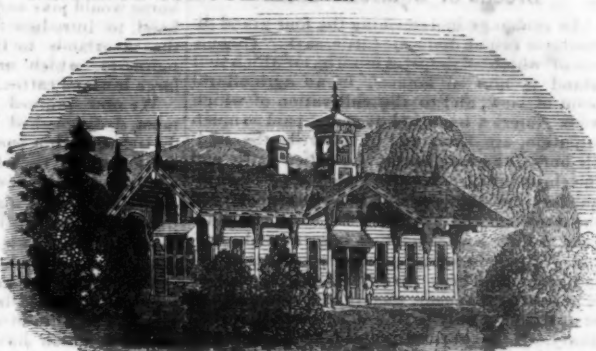
5. The killing of any dog under the provisions of this law, shall be no bar to an action for damages done by such dog, against his owner or master—but in all civil actions for the killing of a dog, the defendant shall be a competent witness, and his testimony shall be prima facie evidence.

6. The killing of a dog contrary to the provisions of this statute, shall be considered malicious mischief, and shall be indictable as such.

APPLES FOR HOGS.—Daniel Emerson, of Summit Co., Ohio, writes to the *American Agriculturist*: "In my youth, my grandfather, one autumn, weighed four shoats and put them up to fat. I gathered sweet apples and fed to them. At killing time, the hogs were again weighed, and were found to have gained two pounds per day each. They were fatted only on apples, and the pork was very nice, sweet and sufficiently firm. This year (1865) I kept my pigs penned, and during the summer daily gave them weeds from the garden. From the first of August for two months they had nothing but sweet and grafted sour apples, and since then apples and corn. The largest came to the knife before the first of December, very fat, and made most beautiful and sweet pork. A farmer in a neighboring town, pronounces an acre of even an indifferent orchard to be equal in value for hogs to an acre of the best corn, year by year." Why not plant sweet apple orchards for hogs and for cows also?

DISTRICT SCHOOL HOUSE.

The above plan was given by the late Mr. Downing, in the "Horticulturist," and was described as follows: "It has at least the merit of simplicity in the plan, and as it is a parallelogram, of economy in construction. An entrance hall or lobby opens into a large school room for boys, upon one side; and one for girls on the other. Between these two rooms, is a recitation room, which may contain a book-case for the school library. The exterior is bold and picturesque—the style a modification of the Swiss—and well adapted to many sites in our varied rural scenery. The widely-overhanging eaves afford a species of verandah shelter round the building. This style is exceedingly well adapted for a wooden building, and its details are so simple that any country carpenter of intelligence could construct such a school house without any further working drawings. As we look upon the rural church and district school house as contributing more essentially to the architectural education of the country at large than any pri-



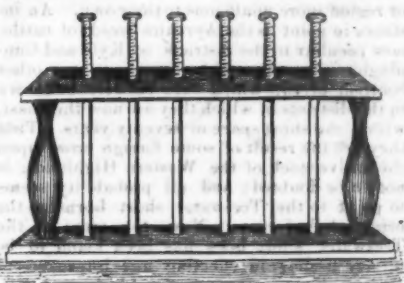
uate buildings, the presenting from time to time various good models would essentially assist in banishing the present deformities which pass by these names, from the face of rural districts."

Let the friends of education bestir themselves.

THE LACTOMETER.

A convenient and most useful instrument for testing the richness of milk; a glass tube showing the proportion which the cream bears to the milk of a cow, the principle being, if the new milk is poured into glass tubes and allowed to remain undisturbed, the division between the cream which floats upon the surface of the milk will be so evident, that its depth may be easily measured—and should the milk from any particular cow produce more cream than that of another, the difference will be seen by the division or marks on the glass tube. The Lactometer consists of five or six glass tubes, about half an inch in diameter and eleven inches long, fitted into an upright frame, each tube having a fine line drawn around it, ten inches from the bottom, and three inches from the line downwards; it is graduated into inches and tenths of inches.

At milking, each tube is to be filled up to the line with new milk, and after standing twelve hours, the quantity of cream which floats upon the surface, is shown by the scale of inches and



tenths—each division will, therefore, represent one per cent. of the whole, thus:

If the milk given by a cow at one milking is one gallon, or eight pints, and the thickness or depth of cream is fourteen divisions, multiply the number of pints (eight) by the depth of the cream (fourteen)—and the result will be that the produce of the cream of that milking is 112, or one pint, 12.—100. Care must be taken to fill these tubes as soon as the bucket is taken from under the cow, and from the middle of it, which is done by dipping a vessel below the froth.—*Ex.*

BLUE GRASS.—The Kentucky Blue Grass grows luxuriantly on the rich Johnson County prairies. A specimen from the farm of Major Henry Russell, measured five feet three inches in height. Can Kentucky beat it?—*Warrensburg, (Mo.) Standard.*

HARD CEMENT FOR SEAMS.—Take equal quantities of white lead and white sand, and as much oil as will make it into the consistency of putty. Apply this to the seams in the roofs of houses, etc. It will, in a few weeks, become as hard as stone.

ALDERNEY CATTLE.

N. J. COLMAN, Esq.—Please say to your friends inquiring after Alderney cattle, that there was an exhibition at the last Illinois State Fair at Chicago, a herd of Alderneys, exhibited by Mr. C. S. Dole of Crystal Lake, McHenry Co., Ill., which herd was considered by judges of that breed of cattle as being pure stock and possessing the real qualities of good milkers.

Respectfully, S. B. CHANDLER.

Belleville, Ill.

Breeds of Domestic Cattle.

An exchange in describing the four grand divisions of British domestic cattle, says: "To some one of which all the great families for which that island is now so famous, in an agricultural point of view, and to the cultivation of which we in America have, in late years, paid so much attention, are directly to be referred—the middle horns, the long horns, the polled cattle and the short horns. We also added a few brief inquiries into the origin of these divisions, and the nature of the countries in which they appear to have been when first known, and sometimes at very remote periods peculiar, if not indigenous. These investigations are not, as it may at first appear, merely idle speculations, or interesting only to the historian, the antiquary, or the natural philosopher; since it is not to be disputed, that all animals are the best adapted by their nature and constitution to the climate, soil and country to which they are indigenous; and that if removed thence and colonized elsewhere, they will thrive and succeed the best in countries of which the climate and soil, the productions, and even the face of the landscape is the most analogous to their native home. More especially is this the case with regard to animals, which are liable to so great modifications from circumstances of pasture, soil and climate as are neat cattle. Nor is it a surmise, unproved by fact, that they are so modified and so adapted by nature to certain localities, that they cannot be amended or improved, in their native homes, by any admixture of larger, nobler, or more profitable breeds; which have invariably failed in places unsuited to themselves, to engraft any of their own peculiar excellencies on the inferior stock; while they have done so in an eminent degree where the same inferior stock exists in a climate or region more analogous to their own. An instance in point is the Ayrshire breed of cattle, now peculiar to the districts of Kyle and Cunningham, immeasurably superior to any other Scottish breed, which were entirely unknown in the districts of which they are now the boast, within the short space of seventy years. That they are the result of some foreign cross upon the native stock of the Western Highlands, is not to be doubted; and all probability seems to point to the Teeswater short horns as the origin of that cross. Now, the cross of the Teeswater short horn has been found to be utterly useless in effecting any improvement on the Kyloes, among the bleak and barren mountains, which form their home, in which they are exposed to biting blasts, cold rain and sleet, or snow storms and long sub-Alpine Winters, and where they glean but a scanty subsistence from the coarse and innutritious grasses which vegetate with difficulty among the rocks and heather of the highland hills. So soon, however, as the same Kyloe is brought down into the mild, maritime lowlands, rich pastures and soft climate of Ayrshire, the same cross hits to a miracle, and the result is one of the most highly and justly esteemed of modern families of cattle, for its milking and fattening qualities.

It is not, therefore, useless, but on the contrary highly desirable for the cattle breeder to know what is the native climate, the aspect of the country, the soil, the pasturage, and the general character of the locality in which different breeds of cattle have their origin. Since, if he desire to succeed, he must hold his choice of the families of cattle which he would rear subordinate to the nature of the climate and country into which he would introduce them, and must neither attempt to acclimatize, with any hope of success, the races indigenous to rich level or lowland pasturages, such as the Teeswater short horns or the Leicester long horns, among the wild and savage mountains, which are precisely adapted to the hardy, hill-frequenting Kyloes, which will thrive and re-

joice on barren hill pastures, where the short horns would pine and perish; nor, on the other hand, to introduce the sturdy stunted races of the moorlands to the deep fat fenlands and morasses, which are most congenial to the large lowland cattle.

We now proceed briefly to enumerate the most distinguished families of each of these divisions, with a passing mention of the qualities for which each family is the most celebrated, previous to devoting a separate paper to each one of what may be called the great families of modern cattle especially those families to which our own cattle chiefly trace their descent, or to which we are looking for the improvement of our general stock. This done, we shall give a little time to the examination of some families of our own native stock, as it is called, which have become in a great measure distinct varieties, endowed with admirable characteristics and capable, so far as can be understood, of reproducing themselves pure *ad infinitum*. Such appear to be the famous red cattle of New England.

But to proceed. Of the middle horns, by far the most celebrated family are the Devonshires; which, being inferior to many others for dairy purposes, are superior to all as working oxen, not arriving at their highest excellence as beef cattle until they have been worked up to their sixth year, when they fatten with great ease and rapidity; and, if they do not reach the vast weight of some other races, give beef the most beautifully marbled of all, and equal in flavor and richness to any. The Devonshires are very beautiful, docile, active, the working oxen being able sometimes to trot six miles in the hour, and remarkably free from disease. The Herefordshire cattle, which are near akin to the Devonshires, are, perhaps even superior to them as beef cattle, some good judges giving to their flesh the palm over all others, and are good workers in the field; but the cows are exceedingly inferior animals, bad milkers, and of no account. The Hereford ox is a heavier animal than the Devonshire, and has a greater propensity to form fat. The Sussex is another kindred race, intermediate between the two, with many of the good qualities of both, with less activity and a greater tendency to form fat than the Devonshire, while the cows, though better milkers than the Herefords, are not sufficiently good for dairy purposes, and are of too restless and uneasy a temper to form fat quickly. The Glanorgan cattle of Wales resembles the Herefords in all respects, with inferior size. The Pembroke closely resemble the western Highland Kyloes, and, with their rugged hardness and adaptability to all climates and hardships, possess their quality of furnishing delicious beef. For mountainous regions, they and the little Irish cows of Kerry, which have been termed emphatically the poor man's cow, from their excellent milking qualities, in which they far excel the Scottish and Welsh cows, are the *ne plus ultra*. The Ayrshire is, in all respects, an admirable animal, but especially in the qualifications of the breed for dairy purposes, in which it is, perhaps unequalled. Both in quality and quantity of milk they are not to be surpassed; the average annual yield of an Ayrshire cow being computed at from 600 to 800 gallons of milk, giving an average of 287 pounds of butter, or 514 pounds of cheese. Their fattening qualities are highly respectable, but not equal to those of the Devonshires, Herefords or Durhams.

The principal polled cattle are the Galloway's, Norfolk and Suffolks; they are but moderate milkers, with the exception of the last named, which are inferior to no other breed in the quality of their yield, though some may give richer milk. Their beef is of high quality. It is useless to dwell on this breed, as they are scarcely known in the United States.

The long horns, formerly in immense repute, have fallen off in public estimation in late years,

and it appears to be the general opinion that they have deteriorated. They were never famous as milk cattle, and their beef is estimated as clearly inferior to that of the Devonshires, Herefords or Durhams, while the peculiar formation of their long, decurved wide spread horns adapts them but ill for draft.

Of the short horns, there are four families, two of them superlatively excellent, the Durhams, Yorkshires, Lincolnshires and Alderneys. The boast of the short horns is that they unite in the greatest degree the qualities of milking and forming fat—and the boast is a just one; but the drawback is that the over tendency to form fat, in the pure Teeswater Durhams, operates against the milk giving qualities of the cow, and often renders the bull barren at an early age.

In the Yorkshire cow, which is a pure, unmixed short horn, produced merely by careful breeding from parents on both sides famous for milking rather than fattening tendencies, this defect is completely conquered, and she may be pronounced the *ne plus ultra* of all animals for the combined properties of yielding milk and eventually making beef. She is the favorite dairy cow of London, averaging 20 to 24 quarts per diem, giving a larger yield of butter from the same quantity of milk the older she grows, and, when her services to the pail is over, fattening rapidly and with great ease, and yielding beef of the first quality. The Lincolnshire, generally, is an inferior Durham. The Alderney is an inferior, fancy race, famous only for the great richness of her small yield of milk.

CROPS IN ST. CLAIR COUNTY, ILL.

ED. RURAL WORLD:—Have you noticed your Catawba grapes since the thunder storms of the 21st and 22d of June. Until then, there was no appearance of mildew on mine; since then one-fourth have rotted, and I can shake them down by handfuls by barely touching the vines—while my Delaware, Hartford Prolific, Concord, Diana and Clinton, are doing finely. It is not in the situation of the ground, as the Catawbas are on the same trellis with and between my Delawares.

Our farmers are up to their eyes in their wheat harvest, and will not get through before the 2d or 3d of July. Taking the crop altogether in this county, I don't think I ever saw it as good—and certainly not so large a breadth—it is estimated that St. Clair County will sell \$2,000,000 worth of wheat from the present crop—a big pile—but they will do it, or I am no judge.

I may mention that there are a few full blood cows, and some three or four half Alderney heifers at Alton, in the hands of Mr. George or William Killinsberger, and a Mr. Smith. So I learned last year when making inquiry. These are of the Buckmaster herd. C.

A LARGE FLEECE.—At a public sheep shearing in Carlinville week before last, one Merino yielded thirty pounds. It is said that thirty-nine and a half pounds is the largest fleece ever taken from one sheep in America, and that America beats the world. Many people interested in this matter, looked over the Carlinville papers in vain to find a report of this matter. We are surprised that our neighbors should allow such items to go begging.—Bunker Hill Gazette.

Rise early, and never set up late or go to rest with a full stomach.

Advantages of Studying Entomology.

Kollar, speaking on the advantages of studying Entomology to the Agriculturist and Forester, and on the method of doing so, says in the introduction to his excellent "Treatise"—

The intimate connection in which insects stand to man, to domestic animals, and to the different kinds of vegetable productions, makes them well worthy the consideration of every one, and particularly of the agriculturist and the forester. Although insects are small and inconsiderable, the exceedingly great number of species, and the still greater number of individuals in many of them, fully compensate for their want of corporeal magnitude. The amount of the species of plants, and all the classes of other animals taken together, cannot (according to the latest estimates) equal in amount the species of insects, as we reckon about 300,000 species. If we consider the fecundity of many kinds of insects, which sometimes produce an offspring of several hundreds or even thousands (the females of the termites or white ant producing an offspring of 40,000), and also that some kinds produce several generations in one year—it appears evident that the number of insects can hardly be estimated. As a proof of this, which perhaps to many may appear too bold an assertion, we need only to mention the enormous swarms of locusts [grasshoppers], which are sometimes so numerous, and in such masses, that they darken the sun, and when they alight, they frequently cover several square miles of land; also, the *Rhago columbaschensis* Fabr., a minute dipterous insect, but a fearful plague in many parts of the bannat of Temeswar [in Southern Hungary, Europe,] and which, when congregated in the air, resemble dark clouds, although each individual is not more than two lines [one-sixth of an inch] long. Who could even reckon the myriads of gnats or midges, which in many years, like pillars of smoke, ascend in the air? Or who could succeed in ascertaining the number of inhabitants in an ant-hill? All these myriads derive their nourishment either from plants or animals, in their living state, or from their remains when dead; and there are even some to which man himself must pay tribute with his blood.

"From such considerations are we not" (says Schrank, the worthy Bavarian naturalist,) "alarmed for our forests, gardens and groves? Do not these innumerable millions of insects which incessantly labor at their destruction, confuse our understanding when we begin to reckon them, and terrify our imagination which magnifies them? And can I be believed, if I assert, that I discover beneficence in such unspeakable destruction, beauty in these devastations, wisdom in this disorder, and life in this manifold death? Nevertheless it is so. Whatever many may say of nature growing old—the naturalist finds her always young and beautiful, always estimable, just as she came from the hand of her Creator, and as she indeed every moment issues afresh from the hand of the Almighty Being. In His hand the youth of nature is continually renewed; and under His all-ruling providence, all the millions of apparently destructive beings only labor in preserving her existence and embellishment.

"Let us here contemplate the whole economy of nature at a general glance, in respect to forests only; and let us view her as she is, without the aid of man, who often disturbs her general arrangement.

"Insects that feed on wood are not injurious to ligneous plants, except from their disproportionate numbers; and these numbers, when left to bountiful nature herself, are never disproportionate: two assertions, which however paradoxical they may seem at first sight, are yet admitted by the naturalist, who has proofs of them daily before his eyes, as principles, but which I must here demonstrate, because many

persons who are engaged in studying the works of nature, either as professional men or as amateurs, are not naturalists.

In a work on the Fruitfulness of Plants [also written by Schrank] it is stated that an elm twelve years old in one single year produces 164,500 seeds; which, in the course of another twelve years (if no accident happened) would become as large trees as their parent; and from this calculation it appears that a succession of much more than 26,960 millions of trees might be obtained from one.

"This calculation is made from the fruit only, and not from the blossom of any tree, and is therefore applicable to all other trees. A single species of tree, such as we have them in one of our provinces the most scantily clothed with trees, would, during the life of man, cover a large extent of land with a thick forest, and after a few centuries it would appear as if the whole world had been made for it only—as if it alone would cover the whole extent of dry land.

"The great multiplicity of organized beings which makes the world as it is at present so beautiful, would then have disappeared; symmetry, which gives a charm to this multiplicity, and which delights the contemplator of nature in exalted enthusiasm, would have vanished; soon would all animal life in the habitable world be destroyed; a great number of birds which live only on insects which eat wood, we have already annihilated, by our presupposition that these insects do not exist; the thick impenetrable forest, which the kind of tree mentioned would cover, would soon supplant every blade of grass, kill every insect intended to live upon it, every bird to which these insects were intended as food, destroy all animals living upon grass that could not reach the tops of the high forest trees, and finally kill every beast of prey which could not at last even find a carcass to satisfy its ravenous hunger.

"This is but too faint a picture of our earth, which, without the insects that live on wood, would be but too true. A wise hand has scattered them everywhere, and given to each kind its particular instinct, its peculiar economy and great fecundity. With them, order and life are restored to universal nature. On their side, pursued by powerful or weak, but not less numerous enemies, they unceasingly follow the given commands of Providence.

"The proportion which exists between their increase and the occasion for it, and their enemies, secures nature from the devastations which they would occasion, and restores all to the most admirable equality.

"A forest of firs more than a hundred years old, has already nearly terminated its appointed existence. A host of caterpillars first takes possession of the branches, and consumes the foliage. A superfluity of sap (the circulation of which is rendered languid by the failing strength of the tree), an unnatural increase of the nourishing juices between the bark and the wood, and the separation of these parts, are the consequences.

"Another host of insects now appears; they bore through the rind into the inner bark, which they eat, and pierce through; or into the wood, which they pierce and destroy. The diseased trees are now nearly dead; the numerous destructive insects increase with the sickness which attracted them there; each tree dies of a thousand wounds, which it receives externally, and from the enervation which follows in consequence. The dissolution is accomplished by a third host of, for the most part, smaller insects, but still more numerous; and these are continually employed in reducing the decayed trunks to dust as soon as possible, while at the same time a thicker forest of young trees and generally of a different kind, spring out of the earth which had afforded nourishment to the dead tree. The first host certainly occa-

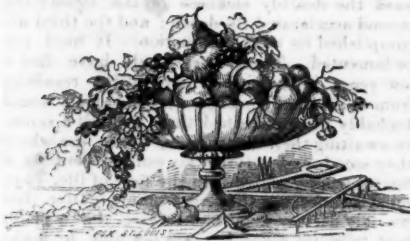
oned the deathly sickness of the forest; the second accelerated its death; and the third accomplished its total destruction. It need not be lamented. These trees would have died a few years later, without any utility resulting from their death. Their leafless stems would probably have remained there for half a century awaiting their destruction, of no use where they stood, and serving no purpose but as a fearful trophy of death in the field of life. They must die, because they are organic matter. But we only destroy a worn-out vessel that a better may take its place, but are not able to make anything better out of it. It is not so with nature. Millions of sensitive beings find a use in the remains of these dying trees, and under every step of near and approaching death, thousands spring forth endowed with vitality.

"Each host of these insects are again exposed to destroyers, which put a check to their too great extension. Other insects, and a great number of birds, clear away the caterpillars while they are feeding on the leaves, and when they have undergone their change, and are lying in the earth, the wild boar comes and stirs them out from their place of rest with his tusks and devours them with the greatest eagerness. Those insects which conceal themselves in the inner bark or wood do not share a better fate. The woodpecker knows where to find them, and draws them out of the deepest holes. When they appear on the bark in the perfect state, they have the bitterest enemies in the fly-catcher, the tree-creeper, and all kinds of magpies. Whole hosts of these birds are found where these insects abound in multitudes; but they leave the place and disperse themselves as soon as the superfluity of nourishment is exhausted. In this state all nature is on a perfect equality; but man comes and destroys the order—he annihilates the harmony of nature, and is astonished at the discordance. First, he sacrifices the wild boar to gratify his palate; takes possession of the wood, and, according to the usual fallacy of taking the consequences for the cause, considers the woodpecker his enemy, and finally under various pretenses wages war with all the birds of the forest. Insects appear to him too contemptible for his pursuit, too small, too numerous, and too well concealed, to reward him directly for the trouble of endeavoring to extirpate them. They may, therefore, go on with their occupations undisturbed, and if they carry them too far, he then complains of Providence.

"After having wrested the lordship of the woods from the animals, we should pursue with wisdom the economy which heretofore the animals, from a blind impulse of nature had practiced. We should anticipate nature in her operations, and cut down trees that approach weak old age, or those that are checked in their growth by a stronger tree standing near them, or those that have been killed by lightning; and the teeth of the boar which prepared the earth for the seeds, should be replaced by the pickaxe, and our tame pigs ought to be employed in digging up the earth-grubs, which the boar was accustomed to do. We only are to blame if our finest forests are destroyed," &c. Such are the expressions of a practical naturalist on insects which are injurious to forests. A similar picture may be formed of those which attack fruit trees, field fruits of all kinds, and even our domestic animals.

The result of such contemplations will be, that we can only protect ourselves from the injurious influence of insects by an ample knowledge of the reciprocal relation in which one stands to another, and in order to obtain this, it is essentially necessary to acquire a knowledge of those kinds which are directly or indirectly injurious to man, their different stages of life, their nourishment, propagation, duration, and finally their natural enemies.

Preserve a cheerful mind, and never lose your self-possession.



HORTICULTURAL.

PRUNING.

It is not every one who grows trees that understands the objects of pruning. If the heads of young trees are pruned and the branches shortened when they are planted according to the instructions we have from time to time given, few branches will require to be cut off at any one time afterwards. Indeed, no tree should be allowed to grow so as to require any great amount of pruning at once. Fruit trees that were set the past spring and duly pruned, will now require occasional looking after; where a branch appears sickly, it should be cut back still farther to a vigorous shoot, and where any superfluous or interfering branches have put forth, they should be cut or rubbed off, always having in view an open, well-balanced symmetrical head. These remarks are equally applicable to all fruit trees. Trees that were set in previous years, require similar treatment. If fruit trees are treated in this manner from the time they are planted until they are six or eight years old—they will present uniform, handsome tops, with fair, smooth branches, with no wounds or scars to be healed, and the fruit will be large, fair and well-flavored. No instrument larger than a pocket-knife, or an ordinary pruning-knife, should ever be used.—Practicing this mode of pruning, it matters but little when it is done; but if a large number of trees are to be pruned so as to render it a business, we should prefer to do it from June to mid-summer; then the tree is making a vigorous growth and the little wounds are readily healed. Old trees, that have long been neglected, until their branches have become so thick and their heads so close and compact as neither to admit the sun nor a free circulation of air, can never produce large, well-flavored, or finely-colored fruit. Such trees require pruning, but it should be done with caution and not all in one year. For this kind of pruning, the winter or early spring is the best time.

MULCHING.

There is no operation more important in the summer treatment of trees and plants, than mulching. Newly planted trees will make more than double the growth when mulched, than when the surface of the ground around them is exposed through the summer to the scorching rays of the sun and the drying winds. Many trees that die the first season after they are planted might be saved by this simple treatment. With a covering of from two to four inches of old straw, hay, saw-dust or tan-bark, a uniform moisture is kept up in the soil during

summer, however dry the weather may be. The growth of the tree, too, is much more healthy, and better able to withstand the severe changes of winter than when it is prematurely and suddenly checked in summer by drouth, and ready for a new and vigorous fall growth as soon as rain sets in, leaving the stem and branches in the fall filled with unelaborated sap.

If this has not already been attended to, it should no longer be delayed. The ground around the trees should be well hoed and broken up, and a covering of old straw or other litter at once applied.

Mulching is even more important to raspberry and blackberry plants, currant bushes, &c. This treatment insures strong, vigorous stems, and will give the following year double the supply of fruit that can be expected without it. In the country, where straw is abundant, the entire labor of cultivation and weeding is saved by the application of four or five inches of straw over the ground between the rows of plants. The ground should have a good working between the rows with the cultivator, and the straw then applied, covering the entire surface. This is the great secret of the success of some gardeners and fruit raisers.

In the culture of tomatoes, mulching will be found to produce an astonishing effect. On land not too rich, a constant succession of fruit may be had through the summer. This dressing, too, keeps the tomatoes from the ground and prevents rotting, by which so many are lost in wet weather. If a few small brush were first laid down under the plants before the straw is applied, it would be better. A hundred plants well mulched, will yield more fruit than two or three hundred cultivated in the usual way.—Try it.

[Written for Colman's Rural World.]

The KOLREUTERIA PANICULATA.

On a sultry day last August, after climbing the steep bluff that leads from the Mississippi river up to the residence of Dr. Hull, above Alton, Ill., a number of the members of the Missouri and Illinois Societies, ranged themselves under the grateful shade of a small but pretty tree, in full bloom, and with an umbrella-like head, that grows near that gentleman's house.

Pretty soon a speculation began as to what kind of tree it was. All present were horticulturists, yet some of them did not know the tree, other did. It was the *Kolreuteria Paniculata*—This is a very handsome small tree, which is hardy and flourishes well here, and should be in every garden; it has a rather spreading, umbrageous head, rather dense than otherwise; blooms and seeds freely, and must be especially desirable in small gardens where there is not room for larger trees, yet where some shade and beauty is needed; while in all large collections it should not be omitted.

The *Gardeners' Monthly* copies from London the following account of it: "This is a tree of the middle size, with a loose irregular head, polygamous, that is sometimes hermaphrodite, and sometimes uni-sexual; a native of China, and introduced in 1763. It was first cultivated in Croome, in Worcestershire, by the Earl

of Coventry; and is highly ornamental, both for its large compound leaves, and fine, loose terminal spikes of yellow flowers. It is very hardy. It has not only a fine appearance when in flower, but also in autumn, when the tree is covered with its large bladdery capsules, and the leaves change to a deep yellow.

It is of the easiest culture in any common soil, and is readily propagated either by seed or cuttings. The tree ought to be in every collection, on account of the beauty of its leaves, flowers and fruit." C. S.

Cultivation of Farm Orchards.

As the best season for pruning a tree is at hand—that is, so far as the tree only is concerned—we purposely omit speaking of the soil best adapted for an orchard locality, and method of setting the trees, to present some reasons why pruning is necessary, and when it is best to do it.

Mr. Downing says: Our bright and powerful sun, reaching every part of the tree, renders the minute system of pruning and training which prevails in England, of little or no moment here. Pruning is therefore commonly resorted to only for the purpose of increasing the vigor of feeble trees, or to regulate and improve the form of healthy and luxuriant trees. Every fruit tree, grown in the open orchard or garden as a common standard, should be allowed to take its natural form, the whole efforts of the pruner going no further than to take out all weak and crowded branches—those which are filling uselessly the interior of the tree, where their leaves cannot be duly exposed to the light and sun, or those which interfere with the growth of others.

Mr. Cox says: When orchard trees are much pruned, they are apt to throw out numerous superfluous suckers from the boughs in the following summer. These should be rubbed off when they first appear, or they may be easily broken off while young and brittle.

Mr. Nicol, an experienced gardener, says:—The object of pruning young trees is, to form a proper head. Generally speaking, the shoots may be pruned in proportion to their lengths, cutting clean away such as cross one another, and fanning the tree out towards the extremities on all sides—thereby keeping it equally poised, and fit to resist the effects of high winds. When it is wished to throw a young tree into a bearing state, the leading branches should be a very little shortened, and the lower or side branches not at all; nor should the knife be used, unless to cut out such shoots as cross one another.

After an orchard tree has come into bearing, Abercrombie says: Continue to cut out unproductive wood, crowded spray and decayed parts. When fruit spurs are too numerous, cut the strongest and most unsightly. Keep the tree pretty open in the middle, the stem clear from all lateral shoots, and eradicate all suckers from the root.

Loudon says: Thin out the spurs moderately to let the air circulate freely among the leaves and fruit in the summer season, and to admit the rays of the sun, so as to give the fruit color and flavor.

Even under our hot suns this advice is appropriate. We know of many orchards now where the clear light of heaven never passes far into the tops of the trees when they are in full foliage.

In pruning the apple tree, Knight observes: The points of the external branches should be everywhere rendered thin and pervious to the light, so that the internal parts of the tree may not be wholly shaded by the external parts; the light should penetrate deeply into the tree on every side; but not any where through it. When the pruner has judiciously executed his

work, every part of the tree, internal as well as external, will be productive of fruit; and the internal part, in unfavorable seasons, will rather receive protection than injury from the external. A tree thus pruned will not only produce much more fruit, but will also be able to support a much heavier load of it without danger of being broken.

This is all sound doctrine, and is entirely applicable to our climate. The prevailing mode of pruning apple trees among us, is to go into the centre and cut away objectionable branches as far as one can conveniently reach, without giving much attention to the external parts of the tree. This is certainly very superficial work. Mr. Knight presses attention to the external branches as of the first importance, and if we reflect upon the office which they perform for the tree and its crop, we must agree with him.

With regard to the most suitable time to prune, there is a diversity of opinion; but the prevailing practice is to prune in March and April—and this practice we believe has ruined and is now continuing to ruin more apple trees than all other causes combined. It does seem that any reflecting person must come to the conclusion that he ought not to cut his tree when the sap is thin and in active motion, as it is during the months of March, or a portion of it, and April and May. He would not allow an inch to be taken from his grape vine at such season, and yet would mercilessly remove limbs from his apple trees that are two or three inches in diameter. The same principle governs both plants. Why not act consistently with it?

Downing says the best season for pruning to promote growth, theoretically, is in autumn, soon after the fall of the leaf. Next to this, winter pruning, performed in mild weather, is the best. He then says: We should especially avoid pruning at that period in spring when the buds are swelling, and the sap is in full flow—as the loss of sap by bleeding is very injurious, and in some cases brings on a serious and incurable canker in the limbs.

It is this loss of sap and canker, that has destroyed so many of our New England Orchards, and is still going on with the murderous work. Some persons seem to find especial delight in doing wrong, merely because they have been in the habit of doing so.

Mr. Downing then adds: There are advantages and disadvantages attending all seasons of pruning, but our own experience has led us to believe that, practically, a fortnight before midsummer is by far the best season on the whole, for pruning in the Northern and Middle States. Wounds made at this season, heal over freely and rapidly; it is the most favorable time to judge of the shape and balance of the head, and to see at a glance which branches require removal; and all the stock of organizable matter in the tree is directed to the branches that remain.

We have tested this practice for many years, pruning a little at all seasons, as well, and are perfectly convinced that the time which he names as best, is best. The disadvantages are, the hurrying season of the year, and the growing crops among the trees.

Mr. Pontey, a distinguished gardener, says: There is one season for pruning unquestionably preferable to all others, and this, in hardy trees, is uniformly a week or a fortnight after midsummer. Wounds made at this season heal more rapidly than at any other. Mr. Main, who considered the subject of pruning physiologically, and was a practical pruner for upwards of forty years, preferred pruning in the beginning of summer. He expatiates admirably on the subject of pruning in his "Essays on Vegetable Physiology," and in an excellent article on "Pruning Forest Trees."

But we will not multiply authorities. There would be no need of any, if farmers would but observe and consider the effects of their own

work. The obstinacy with which some continue to cut their trees in the spring, is the same that resisted the claims of the mowing machine and horse-rake, until they found others who had them in use completely outstripping them in their farm work.

He who prunes from the middle to the end of June, will find his work producing the most satisfactory results, if his work is done in a skilful manner.—*New England Farmer.*

THE STRAWBERRY CROP.

The season of the delicious strawberry is over once more; and the crop has been undoubtedly in general a very large one in our locality. Some spots have suffered from drouth and the bulk reduced in consequence—in most others, no complaint has been heard, and from some growers the largest and finest berries—taking the whole season through—that we have ever seen, have come: the result of new patches, good culture, and timely rains.

The supply has seemed to be liberal—hundreds and hundreds of bushels have been sold and consumed; and yet one of our daily papers asserts that not more than ten per cent. of our population have been able to get a taste of them, the price being above their pocket.

It would be interesting and valuable to obtain the statistics of the strawberries sent to our market—but an impossibility.

They have reached us from all parts around us. First, they came from Egypt—that is South Pass and elsewhere in Southern Illinois. These of course commanded a high price, and could only be obtained by wealthy epicures. These were soon followed by the early sorts from our Pacific and Iron Mountain Railroads, which are in fact but a few days later than those from Southern Illinois. A week later, and the great bulk of the crop from our neighborhood comes in, and the price reaches its minimum, which may be stated to average, at wholesale, 50 to 60 cents per gallon for Scarlets. The Iowa or Washington, 75 cts.; and 90 cents for Albany.

Although large quantities of the Scarlets are still grown (being an early kind), the leading variety may safely be stated to be the Wilson's Albany, it being grown almost exclusively for shipping—and also (except the Scarlets and a later kind, known as the Pine Apple, grown by the same class of growers as the Scarlets, are—namely, old fogies,) by all our own most intelligent and advanced fruit growers.

A few other varieties are grown to a very limited extent, such as the McAvoy's Superior and Extra Red, the Moyamensing, Russell, and a few others—but the Albany may fairly lay claim to be the leading variety, and as yet we see or know of nothing to supersede it.

THE HESSIAN FLY.—Wheat growers suffer greatly by the ravages of this insect. It can be easily destroyed in the following manner:—About the middle of August sow a strip of wheat adjoining where you intend to put your crop—say one or two acres. About the middle of September sow your field. When that has come up and shows cleverly, plow under deeply the first sown. The fly is headed, and your crop is safe.

Alton Horticultural Society.

EMINENCE, June 7, 1866.

Met at J. E. Starr's. President Flagg in the Chair. H. G. McPike, reported grapes more injured than he supposed at the last meeting.

Dr. Hull, exhibited an insect which he calls the Grapevine Curculio. The Steel Blue Beetle has destroyed three-fourths of his grapes. A small grub, or Caterpillar has also depredated on the grapes where the Beetle worked.

REPORT OF COMMITTEE ON CRITICISM OF THE PLACE OF WM. H. SMITH.

Mr. President—Your Committee find the residence of Mr. Smith, situated near Upper Alton. But few years ago this place was but a wild and densely wooded hill. With much taste and industry Mr. Smith has converted what was so lately in the rudest state of nature, into a country residence of much picturesque beauty. It comprises about forty acres and is one of our finest examples of good management and high culture, both in an ornamental and Horticultural point of view. The house is conspicuously placed on a commanding eminence with a fair foreground of natural and picturesque scenery stretching out on all sides. Upon the south and in the rear of the house the surface is much broken and varied, beautiful flower beds, groups of shrubs and evergreens. Dwarf Pears and small fruits of all kinds occupy the slope contiguous to the house. Upon the opposite slope beautiful terraced vineyards meet the eye covering the whole side of the hill, and surmounted by orchards of apples, peaches and other fruit. Overlooking all we have a fine view of the Mississippi, and the distant hills of Missouri, forming a background to a picture of rare beauty and grandeur. To enumerate the many objects of attraction this place presents, would occupy more space than would be allowed us, but we would fail in our duty did we not mention the magnificent floral display upon the occasion of our meeting. At each end of the parlor arranged upon steps reaching from the floor to the ceiling there was presented a display of house plants rarely excelled in variety, beauty or fragrance; to say the display was gorgeous is but a faint praise. We were particularly struck with the rugged and healthy appearance of the foliage, denoting great care on the part of the ladies having that department in charge, combined with a thorough knowledge of the floriculture in all its details, without which such success could never have been attained. We regret we are unable to give the names of the house plants, and also of his fruits, shrubs, vines, &c. Mr. Smith has failed to furnish them, which accounts for the delay in this report. The fact that the grounds were designed and laid out by a landscape gardener would be a sufficient reason for the Committee to indulge in some unfavorable comments, but as we have not space enough to do justice to its beauties, we hope to be excused from commenting on what we consider its faults.

R. L. KINGSBURY, Chairman.

The subject of Strawberries was taken up: The Russell, presented as finely flavored; not know how it will ship.

Mr. Kingsbury has the Agriculturist; very thrifty and productive.

Dr. Hull—How would you make a plantation of strawberries.

Mr. Richl intends to set out in rows, three feet apart, and fourteen inches in the row. Keep off the runners, cultivate in hills.

The Doctors object to this. There is a great accumulation of plants to one root. If the root is destroyed by grub, or any cause, there is far greater loss than if plants are separate.

Mr. Holmes—They are more liable to bloom in the fall, and so the fruit destroyed. He prefers plowing the fall before, then simply harrows the ground when the plants are set.

Mr. Kingsbury prefers new ground. It is the custom in Cincinnati to use new soil. Dr. Hull takes up the plants with a garden trowel, leaving dirt around it. Rows of three or four inches apart, twelve or fourteen inches in the row, train the runners into the rows. Is setting out Longworth's Prolific. Is larger than the Wilson, more productive, better flavored, keeps itself off the ground. Requires rich soil.

J. E. Starr has fifteen or twenty varieties. Considers the Buffalo and Russell the best. Has Agriculturist, very large, but not as productive or well flavored as the Russell.

F. Curtis has thirty plants of Jucunda. It has done very well, but sees nothing remarkable about it. Mr. Hilliard considers it a humbug. Has no doubt that Knox makes it pay by raising plants and selling them at \$3 per dozen. His remarks on Knox, Grant & Co. were to the point and well received.

Committee on Wine report the following drinks on the table: One bottle of Currant Wine, by Thomas Carroll, Esq., made from the same receipt as hereto-

fore recommended by this Society. Very good, indeed.

Two bottles of Blackberry Wine, by J. E. Starr: Both rather sweet, but clear, and tasting more like cordial than wine. One sample with only two pounds of sugar to the gallon of juice, pretty good.

A generous supply of Concord Wine was on the table, made and supplied by our host, which your committee cheerfully recommend, notwithstanding the dislike evinced by some who have not yet learned to like it.

Two bottles of Cider by Mr. Hilliard, of Brighton, over three years old, scalded while new, which does not strike us as any improvement on the old original article. The other was better by far and must be called good cider for this time of the year.

Mr. Pearson defended the use of sugar and water in making wine. You might as well oppose the use of sugar and cream in coffee.

J. E. Starr says the Indigo bird is an insect-eating bird, and should be fostered. Recommended green rye straw, wilted, for tying the young wood of grape vines.

Rev. W. G. Johnson's corn has been cut down and beaten into the earth by the late severe hail storm. What shall he do with it? Half of his apples are beaten off the trees, the other half are badly bruised.

H. G. M'Pike thinks there has been more damage to grape vines from the past winter than is generally supposed. He would tie early in the spring, and not wait for the buds to grow to any length. Tie the young canes early to prevent their breaking by the wind. Tie the old canes very strong. Reduce the fruit to two bunches on a lateral. Would stop the young canes at the top of the stake, and force the laterals for fruiting next year. Has trained in various ways, and thinks there is but little difference in the results; but rather prefers the bow system as more convenient.

FROM CALIFORNIA.

The following letter was read before the Alton Horticultural Society. It is addressed to W. C. Flagg, Esq., the worthy President of that Society:

OAKLAND, CAL., April 20, 1886.

Since my last I have made further inquiry concerning the evergreen cherry, and have ascertained that its botanical name is "Cerasus ilicifolia." The apprehensions I expressed regarding the difficulty of its transplantation, I have discovered to be entirely unfounded. Of a number of young plants set out in hedge-row, about the middle of March, (late for this climate) not one has died! I saw them yesterday and found that all of them were in fine growing condition, many having already lengthened their branches as much as six inches. There need be only one fear entertained now respecting the success of the Cerasus ilicifolia, and that is in regard to its hardiness. It is said to accomplish its yearly growth, and ripen it, in good season, which you will perceive is highly conducive to its hardiness. It would be well the first winter to protect a few of the plants. Should those unprotected be killed, the others might be strong enough the second winter to live without protection.

Immediately on the receipt of your letter I wrote to a number of fruit growers on the subject of your inquiries. I also made personal inquiry from nurserymen and others in this vicinity. I have not received any replies thus far through the mail, but I give you the result of my inquiries made around Oakland. I may promise that these results are based partly on experience and partly on observation of San Francisco market.

With respect to the wild apple or crab, I have to state that I have twice crossed the Rocky Mountains and Sierra Nevada—each time by different routes—and have not seen anything of the crab. It may exist in one or both ranges, but I doubt it. The first trip I came by way of South Pass to Salt Lake City, thence by Bear river, at the northern end of the valley, to the Goose Creek Mountains and head of Humboldt river and thence down the long valley of the Humboldt to the Truckee river, crossing the Sierra Nevada by the Truckee Pass, and neither saw nor heard anything of the crab.

Last year I came by the way of Denver, (leaving it 60 miles to the southwest,) crossing the Platte at the mouth of Cache la Poudre river, and penetrating the Black Hills at Camp Collins (or "La Porte"), thence meandering along the canons of those hills till we emerged on Laramie Plains, crossing the Rocky Mountains by Bridger's Pass, and entering Salt Lake Valley, as before, by Echo Canon; thence by the southern end of the lake, crossing a country for the most part sterile and arid, and alternating with mountain and valley, each generally 15 to 20 miles across, we struck the Carson River, and crossed the Sierras by the Lake Bigler Pass, seeing nor hearing nothing of the crab.

If the crab existed in the Rocky Mountains, we certainly ought to have seen it. The routes of travel comprise just such situations as fugitive fruits would be most aptly found in. Still it may be there, but not, I think, on the routes I have specified. We traveled with oxen, and in herding and hunting them up we became pretty well acquainted with the "brush" and its fruits. Nor can I find any person who has seen or heard of the crab growing in any part of California. I will, however, avail myself of every opportunity to make further inquiries.

The following list comprises all the fruits I met with in the Rocky Mountains:

Currents, black, invariably I believe, sometimes of large size, but miserable in quality. Gooseberries, very poor in all respects. A bush species of raspberry, growing on dryish but rather good soils, strong stalk and limbs, large, seedy, worthless fruit. The service berry, inferior to that of "the States." The choke-cherry, worthless. The haw, very good; and the barberry or berberry—this last is said to be tolerably pleasant when touched by frost. It surpasses anything I ever saw in profuse bearing, and is employed by mountaineers and Indians as an anti-scorbutic. I have heard of strawberries, but never saw them.

The changes effected by the climate of California upon old varieties of fruits can only be properly observed by one well acquainted with the characteristics of each variety in the countries whence it came.

There are few if any persons in this State engaged in fruit culture who had sufficient prior experience to be now qualified for such a task, or even though they had, I can hardly think their recollections would be safe to depend on.

However, there are some changes in both tree and fruit, so obvious that all have noted them. The tree in all species is more precocious. In the nursery row, I have seen seedling peach trees one year old in bloom. And two year old grafted or budded trees, blooming in the nursery, is a common sight; fruit in the nursery is not unfrequent. The apple tree is said to be short-lived. It seems natural that it should be, yet, during the past winter and thus far in the spring, all which time I have passed in orchards and the nursery, I have met with no symptoms of decay that might be fairly attributable to the climate. If an apple be planted in the ground too dry, and be not irrigated, it will suffer, but the owner is to blame. If it deteriorate from thick accumulations of moss, whose fault is it? If it becomes stunted, ill-shaped, broken and decayed, from heavy bearing while young, it is the owner again that must be blamed. And if the tree dwindle and finally perish, because gophers nibble at its roots, whose fault is that? These, with insect pests, are all the ills that I have been able to discover affecting the trees. Gophers seem to be very partial to the flavor of apple tree roots; they are very abundant here, and what is attributed to the climate is mostly their work. The pear tree seems to be as hardy here as anywhere. Trees planted eighty or a hundred years since, are sound and vigorous.

Apple trees continue to be rather in a growing state all winter; some varieties never being entirely denuded of their leaves, and young shoots starting out in December and January. Some kinds pruned in the latter month bleed like a grape vine cut in May.

The following apples are represented as being first rate:

Red Astrachan, Townsend, White Winter Pearmain, Yellow Newtown Pippin.

Very good—Red June, Early Harvest, Gravenstein, Yellow Belleflower, Peck's Pleasant, Rhode Island Greening, Smith's Cider, Fall Pippin.

The Rambo is good but small; Twenty ounce, "nice," large, does well; Golden Russet, good, great bearer, but small; Porter, first rate for cooking; Maiden's Blush, not very good; Roxbury Russet, falls off; Swaar, rather too sweet; Green Newtown Pippin, tree don't do well; Newtown Spitzenburg, falls off too soon, otherwise does well; Esopus Spitzenburg "tall trees don't grow well; Winesap, too small; Baldwin, don't do well.

PEARS.

First Rate—Madeline, Dearborn's Seedling, Seckel, Winter Nelis, Easter Beurre.

Good—Bartlett, Beurre d'Amalis (great bearer), Virgaliou, Duchesse d'Angouleme, White Doyenne, Beurre Clargene, Glout Morceau.

Louis Bonne de Jersey, fine in season; Flemish Beauty stands well in market but too sweet; Buere Diel, good but coarse; Pass Colmar, not good; Vicar of Winkfield, popular; Bartlett, good, but not as good as it is popular. Rostiezer, unsaleable.

Pears grow in this climate very large. I have seen them large in Illinois and Missouri, but here they are more uniformly large: they would be still larger if thinned, but all are allowed to grow. The quality is considered superior to those of the States, whilst in regard to apples, the flavor and general quality is con-

ceded to be inferior. I have not tasted a "first-rate" apple in California: the best here, come from Oregon—four to six thousand bushels by every steamer during winter.

Peaches.—Early Tillotson, Malta, Crawford early and late, George IV, Smock Free, Strawberry Peach (local), Heath Cling. The foregoing are all first rate, I have heard it said that the quality of the peach is not as good as in the States. I have not tasted any and cannot say. In some localities they grow immensely large. Colfax's party saw one that measured eighteen inches in circumference. This was last summer. The borer is very troublesome.

Plums.—Nearly all kinds do well. The Green Gage, Duane, Purple Imperial Gage, Hudson Gage, Purple Prune, "French" Prune, Coe's Late Red, Coe's Golden Drop, are all first-rate.

The Washington and Jefferson are first rate and very large: sometimes 2½ inches in diameter. Hungarian Prune "monstrous large," but coarse; White Magnum Bonum, good grower but coarse; Red do. "not much account." English and other Damsons good and great bearers.

Cherries.—Belle de Choisey, Elton, May Duke, Black Eagle, Black Tartarian, Griffin, Gov. Wood—all first-rate. Royal Ann, late, good market cherry; "English Kentish," does well, sought after for cooking. The cherry is here a decided success. I have seen trees seven or eight years old as large as fifteen year old apple trees in the States.

Apricots.—Moorpark and large Early seem to be favorites. The apricot does well.

Strawberries.—Wilson's Albany, Longworth's Profife and British Queen are mostly cultivated. Walker's Seedling, good, but too small for market. Cultivators of this fruit have gone in to the business extensively—50 to 80 acres are cultivated by single individuals with a force of from 25 to 50 Chinamen. It is a hazardous, and on the whole, unprofitable business, where easy irrigation is not available. Strawberries hardly pay to pick and ship at less than ten cents per pound. The first fruit in market sells readily at \$1 to 75 cents per pound.

Quince.—Generally does not do well. In some localities does very well.

Grapes.—Nearly all kinds succeed well in the open air. The Muscat of Alexandria, Musk Chasselas, Black Hamburg, Black Prince and White Sweetwater are esteemed as the best. The Isabella "tolerable good."

Large quantities of grapes are made into raisins, and are largely supplanting the foreign article. Several associations for the manufacture of wine have been organized, and one or more are in successful operation.

Figs, oranges, almonds and olives thrive well and are being extensively planted about Los Angeles.

This is a great fruit country; but fruit growers all wear a long face when speaking about their profits. If the Pacific Railroad were completed I think there would soon be a population along it that would form a market for all the fruit that could be raised here. Grape culture, I think is bound to be a success. The poorest soil is generally such as is allotted to the vine, and the culture is radically defective and inefficient. Yet at two cents per pound the business pays. When it has been demonstrated that first class wines can be made here, capital will eagerly seek so profitable an investment, and "Grape Ranches" will be the order of the day. Yours truly, P. S. BURNES.

[Letter sent by Mr. Burnes.]

OFFICE NATOMA VINEYARD,
TOLSON, April 14th, '86.

P. S. Burnes, Esq.—Dear Sir:—In answer to yours of the 9th inst., I must say that I am not equal to the task. To answer questions of so much importance to the great masses, who are daily seeking information through agricultural and horticultural societies, requires a vast amount of experience and careful examination. I will therefore say to you, do not take the opinion of one or a dozen, but make a general inquiry throughout the State; the best place to gain such information is at the State Fair, when you will see the different varieties on exhibition, and a man's own eyes and palate are the best judges, but such information as I can give in my own poor way, I will give cheerfully with as few remarks as possible.

The best and most luscious table grape that I have ever seen—which is also the best of raisins—is the Fisher Zagos, but is so tender that it will not bear transportation to a great distance; the second best with me, is the White Muscat, of Alexandria, although it is nearly a month later than the Fisher Zagos; it is so tough that it will bear transportation to a great distance. The Black Hamburg is third in my estimation, although many prefer the White Malaga, the Pirean, the Rozal Muscadine, the Red Tramier, the Rose of Peru, the White Malvasia, or the Flame colored Tokay; I find them all good and proper, and

so different in taste that it is hard to decide which should be classed ahead. The Black Pounce is also good for wine. I believe that the best of wine that I ever saw was some that I made from the Verdilho, second from the Black Zinfandel; third, the Pinac; fourth, the Red Traminer; fifth, the White Reissling; sixth, the H. M. of Alexandria and Rosal Muscadine. I have cultivated the Catawba; it produces well, but I do not consider it equal to the Los Angeles, nor even to compare at all favorably for wine, or as a dessert fruit; the Isabella I have cultivated, and class it the same as the Catawba. I have tried no other American varieties. For raisins, the Fisher Zagos and large Malign Muscatilla are what I have used with good success, and am in hopes to have a good supply, providing the frost does not trouble us any more this season. My vines were nipped last night in low places; the raisin grapes suffered considerably. My raisins are cured by laying them on tables or blocks, in the open air, exposed to the hot rays of the sun, and tarred over as they mature. I think of nothing more in my hurry. Respectfully, B. N. BUREY.

Warsaw (Ills.) Horticultural Society.

The June meeting of this Society was held at the residence of Mr. Chas. C. Hoppe.

The business of the meeting consisted mainly of a ramble over Mr. Hoppe's grounds and garden, testing his cherries and examining his trees and modes of culture. He has some sixty or seventy cherry trees, eight or ten years old. They are mostly Early Richmonds; but he has several other sorts—as Elton, Purple Guigne, Belle de Choisey, Gov. Wood, &c. While these last have a few cherries, "few and far between" only, the Early Richmonds are laden with fruit, now nearly ripe.

It was the unanimously expressed opinion of all the members present, that the Early Richmond is the best cherry for planting in this region, viz:

1. It is an early and regular bearer.
2. It is hardy.
3. It is subject to few diseases.
4. Its fruit is good and of good size, (though not equal in either quality or size to several others.)
5. It is a uniform and handsome grower.

On the table in the parlor, were fine specimens of most of the above named cherries from Mr. Hoppe's trees; also baskets of Early Richmond, Elton and Doctor (one of Dr. Kirtland's Seedlings) and a handsome white cherry without name, from Mr. A. C. Hammond.

Mr. Hoppe's vegetable garden is a pattern of neatness and order; and can show as fine specimens of vegetables as we have seen this year. The number and variety of flowers, too, and the handsome and well-trimmed evergreens, as well as the clean culture observed throughout, convinced the members that Mr. H. and his family are also lovers of the beautiful.

St. Louis Horticultural Society.

SATURDAY, JUNE 16, 1866.

Society met. President Colman in the chair.

Mr. Peabody offered a resolution that a committee be appointed to visit the fruit-preserving house in this city.

Mr. Tice said he sometime since was appointed chairman of a committee to inquire into the feasibility of erecting a fruit bazaar, and to investigate the principles, cost and success of a fruit-preserving house, with a view if practicable, of connecting one with the contemplated bazaar. He at one time had made arrangements for a meeting of the committee; but learning that Prof. Nyce's patent for the State was in the hands of the parties who have built the fruit-preserving houses, and that another process, said to be equally successful and less expensive, was discovered, or claimed to be, by certain parties in Ohio, and that before long an opportunity would be afforded to the members of the society of a practical demonstration of the invention, he had delayed calling the committee together. He had understood that the parties were now in the city and proposed to be present at this meeting, or if not to have specimens of fruit, &c., preserved by them here for examination. He was very glad, therefore, that the resolution had been offered, and he hoped it would be adopted so as to afford an opportunity to investigate the matter. As for the other parties, he knew nothing of their process. He was fully aware that he must take with some grains of allowance the rose-colored statement of enthusiastic inventors; but after due abatement he believed there was something in it worthy of consideration. Yet he must confess that his credulity did not carry him so far as to believe that they could accomplish all they proposed.

The resolution was then adopted, and Messrs. Peabody, Tice, Saxton and Morse were appointed as the committee.

Dr. Morse was called on to state if he knew anything respecting the parties and the process.

Dr. Morse stated that he knew very little about it; that the parties had been to see him, and proposed to be present at this meeting to explain their process, and exhibit preserved fruit. They had their apparatus deranged on the way, and were compelled to have it repaired before they could show their process, which would be at some future meeting.

The President said that by the next meeting the raspberry season would have arrived, and he hoped that all members would present specimens of such varieties as they had. He did not know that all his varieties would be ripe, but some would, and he hoped that as many varieties would be represented as possible, to enable the members to judge of the fruit, its adaptability for marketing, and its hardness and productiveness. The St. Louis market was not near supplied with delicious fruit, and will not be until more hardy and productive varieties are cultivated than heretofore.

Mr. Tice said the strawberry season had come and gone, and certainly the members must have gleaned some valuable experience in reference to the different varieties, especially the new ones they have cultivated. He would like to hear from the members. His own experience was, that the consumers of this most delicious fruit need as much enlightenment as the producers. This and that variety is objected to by producers because it is too soft for marketing. That is true if the fruit is to be handled as it now is, gathered in boxes holding a bushel or more, and sold to hucksters, who turn it out in their forms, and shovel it over and over again until it gets into the hands of the consumers, when it is bruised, mashed and often-times fermented. We have lists of other fruits for family use, apples, peaches, plums, pears, &c., which are always the most delicious varieties of their respective classes. They are classed as "family fruits," by taking quality alone into consideration. Many of them would be too unproductive to make them profitable for marketing purposes, and some of them would be too soft. Yet who does not know that the choicest of all fruits are the tenderest, and require careful handling. Hence our friends who buy by the eye, and not by the taste, never learn by experience how luscious our choicest varieties of fruits are. There is a remedy, however, for this.

But to apply this remedy, the cost of it must not all fall on the producer. Take strawberries for instance, the tenderest of fruit; by picking them carefully in pint or quart baskets and boxes, and immediately sending them to market, they can be got to the table of our city friends in nearly as good condition as our own tables. They would then know what good fruit is, and learn the difference between different varieties, and create a demand for the best. As it now is, the Wilson is the most sought for, because it is a firm-fleshed variety—not injured so much by knocking about, but decidedly of inferior quality. We cultivate it, first, because it sells best; second, because it is the most productive of all varieties. Our city friends are not likely to get anything better until they cultivate their taste so as to demand something better. At the head of the list for family use I would place the Russell. It is a pistillate variety, and therefore must be cultivated side by side with staminate varieties. When so planted it is nearly as productive as the Wilson, earlier by a few days, and continues in bearing longer, and not like the latter, running to small fruit after a few pickings. Its fruit is of the largest size, and of the most delicious flavor, but here is the rub, it is the tenderest of all. The Fillmore, when filled ripe, and McAvoy's Superior are all delicious, but condemned for marketing purposes, because of their tenderness. So is the Iowa, the earliest and most productive, except the Wilson. As a late variety McAvoy's Extra Red does best with me.

Mr. Colman—I consider the Wilson, taking all things into consideration, as the best for family use and marketing.

Mr. Tice—But you don't set it before your friends if you want them to have something nice, if other varieties are in season.

Mr. Colman—Yes I do, if I can get them perfectly ripe; it is then the highest flavored of all berries.

Dr. Morse—Yes, too high flavored in one sense of the word.

Mr. Colman—It is not so sweet as some others, but it is indispensable. Next to the Wilson I would place French's Soiling, a large berry, good flavor, but somewhat soft. I have not tried the Agriculturist; having been humbugged so much, I thought others might try it.

Mr. Tice—I regard it with my limited experience as a variety that ought to be in every amateur collection. Its extra large size and good quality makes it desirable for a family berry. It bears, however, sparingly and but a short time. There is no money in it, except you can sell it as friend Paddelford did, at double the price of other varieties.

Mr. Peabody observed that he found the Fillmore a

truly excellent berry when fully ripe, and more generally in market than any other.

SORGHUM MACHINERY.—If more evidence were wanting of the superiority of Harris' Patent Self Regulating Sugar Cane Mills, than the fact that the manufacturers have had to increase their works nearly double their former capacity, within two years, to supply the rapidly increasing demand for their machinery, it can be found in such testimony as the following from the editor of the Winona Republican, a leading paper in Minnesota. The editor is a gentleman of large experience in the cultivation and manufacture of sorghum, and acquainted with all the prominent mills of the day, but adopts the Harris mill as the best in use. The adoption of this machinery by such men, must be very flattering to the manufacturers, who being practical mechanics themselves, and overseeing all work done in their establishment, must feel a natural pride in the unexampled success of their machinery.

"We call the attention of those wishing Sorghum Machinery to the advertisement in another column, of Messrs James Harris & Co., of Janesville, Wis. We used one of their crushers the past season, and it fully met the high expectations of it that we published in the Republican about a year since. Ours is a No. 3 power mill, and we prefer it to all others with which we are acquainted—and we have examined the merits of all the leading mills. A neighbor has a Harris No. 2 horizontal sweep mill, which runs easier than the small vertical mills of other makers, and does much more work."

EDITOR'S TABLE.

RAIN! RAIN!

A great amount of rain has recently fallen in the vicinity of St. Louis. Every two or three days copious showers have visited us. Clover hay has been very seriously damaged—as it could not be got up without being thoroughly saturated with water. We fear we shall have another season similar to the last when so much wheat was ruined by the continuous rain. Our advice to farmers is, to take advantage of the first fine weather to cut their wheat. Just as soon as it leaves the milky state, it is fit to cut, and even in the milky state it will ripen up and be as good or better than if left standing till dead ripe. Bind and secure in stacks or barns just as soon as the straw is cured. Better to save half the crop in good condition than to lose by exposure. Western farmers lose greatly every year by not having good capacious barns in which to store their grain.—Large farmers lose enough every year, by the exposure of their hay and grain to the weather, to build one.

S. B. Chandler Esq., of Belleville, Ill., will accept our thanks for a copy of the Premium List of the Illinois State Agricultural Society for 1866. The fair will be held at Chicago, Sept. 24th to 29th, the week prior to the fair of the St. Louis Agricultural and Mechanical Association.

GRAPES AND WINE.—This is the title of a neat little work, just published by Geo. E. & F. W. Woodward, 37 Park Row, New York. Its author is Geo. Husmann, of Hermann, Mo., well known to the vintners of our State. It is a valuable work to all engaged in grape growing. It is practical—tells you what you want to do, and how to do it. The most of that part relating to grape culture has been heretofore in print, but is none the less valuable to the inexperienced. That portion of the work devoted to the manufacture of wine, is mostly new, and will be found very instructive to those about to engage in making wine. The book is printed in very neat style, and is deserving a large sale.



We have received a poem descriptive of a drouth, from which we take the following striking passages:

The sun is rising, and his beams are fresh,
From Africa's burning plains searching my face,
And drying up the moisture of my breath,
Even at this early hour.

The red-hot sun has quenched the smaller brooks;
The river, too, has lost its steady flow;
Its water stands in pools, but clear and bright;
Its pebbled bed for many rods is dry,
And forms a playground for the village boys.

The mountains south are all aglow with fire,
And aged trees are falling here and there
With flames extending to their very tops,
Making the midnight valley bright as day.
The fire has reached the fences leading down
The mountain slopes: but men are there, and arms
Brawny and strong, are hurling blazing rails.

'Tis noon. The cattle from the hills are coming.
You cloud of dust marks out their headlong course;
And as they dash along the flinty way
With eye-balls red and nostrils full of dust,
They look the very creatures of despair. [thirst,
They've gained the river's brink—and mad with
They plunge at once into its pools. DR. SMITH.

[Written for Colman's Rural World.]

My Way of Treating Dyspepsia.

I divide the three meals into six, and add a fourth (or seventh)—the fourth two-thirds of a meal. This I do in this way:

I eat one-third of my breakfast at six o'clock; the other two-thirds at half-past seven. I treat dinner in the same way: one-third at half-past ten; the remainder at twelve. Supper in the same way—lunch, that is one-third at three; the rest of the meal at four and a half. My last meal (two-thirds of a meal, without the lunch), I take at seven and a half. This is an extra meal, and is digested at about ten, at which time I go to bed.

The advantage of this is, that I eat *more food* (and digest it), and *feel better*. The principle is, that the stomach cannot bear much food at a time. This, all authorities are agreed upon.—Hence, there is comparative rest for the stomach, and the patient suffers no gloom and depression of spirits; but, on the other hand, is cheerful and elate; feels easy and clear-headed; has good sleep; and can perform his business with hopefulness and dispatch. The difference is a complete change from the old rule of three meals. All the meals together embrace sufficient food to support the system. The last meal is gain; and it amounts to about one pound (gain) a week. This, in a few months, makes a great improvement in flesh—and a lack of flesh is generally one of the attendants

of dyspepsia, resulting in weakness, and in inability to withstand other diseases should they set in. This is my mode of treatment. A little modification may be necessary in some cases. But the principle is the same; and I have found it the only reliable and efficacious method, after having suffered for seventeen years. But it is a difficult thing to carry out, as the appetite (in some cases of dyspepsia very strong) increases with the treatment. It is hard to restrict yourself to a scant allowance, as each meal and lunch will be. But it is the only way in my case; and it is thoroughly effective. As to the food almost any kind can be used, convincing me that the quantity rather than the quality affects us most (injuriously) in dyspepsia.—Under the old treatment (of three meals a day) quality seemed to have such an effect, that my selection of food became quite limited, cold water even disagreeing at times. I find also, that I can do with much less food now than formerly, showing that the food then was not all digested, but lay in the stomach as a foreign, irritating substance.

"Eat less," should be written over the table of every family, and enforced upon them—the well as well as the sick. We eat too much, especially at a time. DYSPEPTIC.

A Large Stove a Fuel Saver.

Buy a large, rather than a small stove. It will cost you less wood. This will seem strange—but it is nevertheless true. We have tried it, and seen it tried. The reason is, when you get your large stove heated, it will throw off more heat, being larger: whereas the same fire, or nearly the same, will heat your stove. The principle is simple. Small stoves generally have a strong draught, which keeps them cool and the room cool, by the current engendered. Feed a small, smart stove, and it will make away with double the amount which a large, lazy stove will consume. It is much in the draught; also much in the amount of hot iron you have. In a small stove much of the heat goes up the chimney; in a large stove, it goes into the iron—i.e., the excess.

Buy a stove a size larger than you intended to buy. When you get a good fire in it you will be pretty sure to close it up—and then you will get your greatest heat—a bed of coals and hot wood, that will lie for a long time. Your little stove will hardly do this. In cold weather it will not throw out heat enough. A little stove is generally a little annoyance. Reject it. But always be sure to have a perfect control of the draft of your stove—and have dry wood: a stove was not intended for a water evaporator—a kiln-dry. It was intended to be closed when there is a good fire in it, and use made of it.

THE BABY WALKS.

Joy fills the house; the baby stands
Alone upon her feet.
With quivering lip, she lifts her little hands,
And wonderingly doth gaze into her mother's face;
Thus timidly she starts upon life's fiftal race.

How many hopes, how many fears,
How many smiles, how many tears,
Hang o'er her dangerous walk through coming years!
Almighty God! to thee the child is given,
Guide home her weary steps at last to heaven.

THE LEAF.

It dropped at last, after playing all summer on its slender petiole. There it danced in more ways than you can think—in every conceivable way. What frolics it had with the wind! sometimes severe, almost threatening its little life. But there it was in the morning, bright and glittering, as if nothing had happened.—Why? Because the tree could not spare it. Ah! the tree knew—for this is what supported its life, to say nothing of the beauty it gave it. And this leaf made a shade, a little shadow. And how it talked! how they all talked, the many leaves! so numerous, the wind had but little chance to detach one. But now the tree has grown old, or something else—for it lets go its hold of the leaf, and—it drops—it must drop—for the parent stalk is preparing for another brood. As if it knew this beforehand, it began, sometime ago, to pale, to flush its cheek with a hectic. This was bad for the poor leaf. It knew then its time had come; and one morning a severe wind took it off—no; it was one of its mates. It remained a while longer. One day, however, (it was as still as the grave) a slight rustle was heard—and there came the leaf. It was evidently not the rash deed of the wind, but the intent of the tree. The leaf was pushed off—and down it came, complainingly, as a leaf can complain, with a slight grating sound, and the faintest breath as it passed your cheek. It came pirouetting, ricocheting; or did it drop slowly, unassumingly down—and there lie like a golden flake at the foot of the tree? And there it lies this autumn day, oh so sorrowful! so lonely!

IMPULSE.

We are governed by impulse—that is, by feeling. We look upon distress and our sympathies are awakened; we are then very much inclined to act upon the spur of the moment. An orator excites us—we are carried away by his argument, and gratify his designs. Again, passion excites us—we get angry and act under the impulse. All these lead us astray. Perhaps we should say a good impulse leads us into good—but this is not always the case—indeed not generally. Reason should govern in all cases—for reason is right; if not, what is right? It is reasonable to act from a good motive; but a good impulse will sometimes carry us too far—to give beyond our means, or to the injury of the applicant. In love, we carry matters altogether to extremes. There is a universal groaning and suffering in consequence. It is because love is the strongest passion and sways us most. I was just now induced by the pleading face of a mendicant to bestow a favor. The groggery received the favor, and the man is there now, or on the street rather, exhibiting himself. I gratified myself by giving; he by drinking. We see the result.—It is the pleasuringness of these impulses that seduces us: we yield at once as to a sacred feeling. But this is only apparent, for sin is often the sweetest morsel on the tongue. We give, we act, because we gratify ourselves in such cases. Ah, how little reason is strictly adhered to! how little it is made the test in every case of a man's life! The greatest happiness would result did we apply reason in all cases. But we are so little on our guard; we are living so at hap-hazard!

NURSERY MAXIMS.

Remember that children are men and women in miniature, and though they should be allowed to act as children, still our dealings with them should be manly, and not morose; recollect also, that every look, word, tone and gesture, nay, even your dress, makes an impression.

Never correct a child on suspicion, or without understanding the whole matter, nor trifle with a child's feelings when under discipline.

Be always mild and cheerful in their presence; communicative but never extravagant, trifling or vulgar in language or gesture. Never trifle with a child, nor speak beseechingly when it is doing wrong. Always follow commands with a close and careful watch, until the thing is done, allowing no evasion and no modification, unless the child ask for it, and it be expressly granted.

Never reprove children severely in company, nor hold them up to ridicule, or make light of their failings.

Never speak in an impatient, fretful manner, if you have occasion to find fault.

Never say to a child—"I don't believe what you say," nor even express doubts. If you have such feelings, keep them to yourself, and wait; truth will eventually be made plain.

Never disappoint the confidence a child reposes in you, whether it be a thing placed in your care or a promise.

Always give prompt attention to a child when he speaks, so as to prevent repeated calls, and that he may learn to give prompt attention when you call him.

At the table a child should be taught to sit up and behave in a becoming manner, not to tease when denied, or to leave his chair without asking.

Even in sickness, gentle restraint is better for the child than indulgence.

Never try to impress a child with religious truth when in anger, or talk to him of God, as it will not have the desired effect. Indeed it is utterly vain and inconsistent to look for correct deportment or a reverence for religion and its Divine author, if in your own daily and hourly life His law is evidently disregarded.—Children think and draw their conclusions in silence.

Improve the first ten years of life as the golden opportunity, which may never return. It is the seed time—beware what seed you sow. "Do men gather grapes of thorns, or figs of thistles?"

A child taught to behave right at home, will necessarily behave right before company.

Inculcate generosity. Teach the child to share his gifts and pleasures with others, to be obliging, kind and benevolent.

Above all, do not forget that you was a child once yourself. Never refuse them anything that will contribute to their happiness, health and moral advancement—providing always that there are no accessory evils connected therewith. Many gilded baits are presented to the sanguine gaze of youth to entrap their unwary feet, and oftentimes so disguised under the mask of deceit, that even the adult is decoyed away from the path of uprightness, and far from God, and left stumbling on the dark mountains of sin.

An Irish emigrant hearing the sunset gun at Portsmouth, asked a sailor, "What's that?" "Why that's sunset," was the reply. "Sunset?" exclaimed Pat; "and does the sun go down in this country with such a bang as that?"

Seize the present opportunity, and improve it to the utmost.

MARRIAGES IN SCOTLAND.

There are several curious customs still used in Scotland in regard to marriages, especially in remote districts. The friends of the bridegroom assemble at his residence, and proceed to that of the bride where the clergyman meets them, and the ceremony is performed. Then they proceed in procession; preceded by a fiddler to the residence of the young couple. All the young men present start off at full speed on foot or horseback, as the case may be, and the one who first reaches the future home of the happy couple is said to have won the broose, and is entitled to salute the bride on her arrival, and originally entitled to some refreshment out of the kailpot prepared for the approaching party. On the arrival of the bulk of the party, a farle of oat cake (i.e., the quarter of a circle into which this is generally cut) is broken over the bride's head. Then the person in charge of the house presents her with a pair of tongs as the symbol of her future right to rule over the household. The latter custom is not, however, necessarily performed on the day of the marriage if the maiden home of the bride is at a distance from her future residence, but on her first arrival thereat. In some large towns, such as Edinburgh, the custom of throwing money to the crowd is still continued; with this difference, that it is not done by the bridegroom in person, but after the happy couple have driven off. As soon as they have departed, generally followed by a volley of old slippers and satin dancing shoes thrown after them for good luck, the crowd raise the cry of, "Pour out," which is responded to by a shower of coppers from the windows, a proceeding which leads to an amusing scramble, in which members of the police force have been seen most actively assisting, and carrying off no small share of the loot. Another curious custom is that of washing the bridegroom's feet on the evening before the marriage day; but this has become almost obsolete.—[*Ec.*]

THE THREE GRACES.

FAITH.

Bloom brightly, little bud,
All humble as thou art,
God sendeth the still dew
To nestle in the heart;
And all He sends is best for thee,
Even though it be adversity.

HOPE.

Soar calmly, my sweet bird,
Ne'er flutter, faint nor fail,
Though many a mocking word
Thine upward flight assail;
Ere long the starry heavens will ope,
And crown with joy my patient hope.

CHARITY.

Flow gently, little stream;
Beneath a burning sky,
Spread gladness like a gleam
Of mercy from God's eye.
Though parched the land, one touch from thee,
May quench that thirst, O Charity!

THE HOARY HEAD.—"The hoary head," says Solomon, "is a crown of glory, when it is found in the way of righteousness." But "Young America," talks flippantly to his boon companions about the "old man," or "the governor," as a troublesome spy upon his actions, or at best an incumbrance, to be tolerated only as long as he will "shell out" liberally. Is this to "honor thy father?"

USEFUL HINTS.

FOR HOUSEKEEPERS.

Do everything in its proper time. Keep everything in its place. Mend clothes before washing, except stockings, they are best darned when clean. Wash all colored garments with hard soap, and do it as quick as possible. Flannels should be washed in hot suds, and rinsed in clean, soft boiling water; to stand until cool enough to ring out, and they will not turn yellow nor shrink. A little blueing improves them.

Alum or vinegar is good to set the colors of red, green, and yellow; salt is good for blue.—Before you wash, dip blues in salt and water, use alum after. If table-cloths are stained with tea, coffee, or fruit, turn on them boiling water, and let them stand till the water is cold, or the color will never come out. Starch all kinds of calico, but black; use potato water for black, as that will not show. If there are many in a family that wear black, save the water when potatoes are boiled, for this purpose.

Sal soda will bleach clothes very white, but used in large quantities is thought to injure the texture. One spoonful is enough to put in a kettle when you boil. It can be found at druggists; in the country at other stores.

Save all your suds for the garden and plants, or to harden cellars and yards when sandy.

Poland and flour starch should be first wet with a little cold water and stirred smooth, then pour on boiling water gradually, stirring it constantly, and then boil a few moments. Stir Poland, or muslin starch, with a spermacetti or tallow candle, and it will not stick to the iron, and will be very smooth and much nicer.

Count your spoons, knives and forks, towels, handkerchiefs, &c. every week.

Never pour boiling water on tea-trays; wash them with cool suds and polish with a little flour and dry cloth, when dry. If made of paper, use a flannel, with a little sweet oil to rub on the spots; then rub with a dry cloth or old silk handkerchief.

Frozen potatoes will yield more starch, or flour than fresh ones; it makes nice cake.—Some families provide it simply for this purpose. Take a tin grater, full of coarse holes, and grate a bushel or two; wash the pulp through a sieve over a tub; when you have done it in several waters until the starch is out, then let it settle in the tub and pour off the water. Repeat this, stirring it well when a new water is added, until the water looks clear. It is then fit for use as starch or flour, after it is dried carefully.

Indian and rye meal should be stirred, and kept in a cool place in summer, or they will become sour.

Save all your pieces of bread for puddings—but dry them well, or they will mould.

Examine your pickles, sweetmeats, and everything put away to keep, that nothing be lost for want of care.

If you buy your cheese, never get a large quantity at a time, especially in summer. Get your butter put up by some good family, in the fall, for winter use, and in the summer engage it fresh every two weeks at least.

A hot shovel, or a warming pan of coals, held over varnished furniture, will take out white spots. The place should be rubbed while warm with flannel.

Skim milk and water, with a bit of glue dissolved, and hot, is good to restore rusty black Italian crape. It should be clapped and pulled dry, and it will look as well as new.

It is said we must die before we can test death. There is no such test. Death is a mere blank.

MY GARDEN GATE.

BY CHARLES MACKAY.

Stand back, bewildering politics,
I've placed my fences round;
Pass on with all your party tricks,
Nor tread my holy ground.
Stand back—I'm weary of your talk,
Your squabbles and your prate;
You cannot enter in this walk;
I've shut my garden gate.

Stand back, ye thoughts of trade and pelf,
I have a refuge here;
I wish to commune with myself;
My mind is out of gear.
These bowers are sacred to the page
Of philosophic lore;
Within these boudoirs no envious range;
I've shut my garden door.

Stand back, Frivolity and Show;
It is a day of Spring;
I want to see my roses blow,
And hear the blackbird sing;
I wish to prune my apple trees,
And make my peaches straight;
Keep to the causeway, please;
I've shut my garden gate.

I have no room for such as you,
My house is somewhat small.
Let Love come here and Friendship true,
I'll give them welcome all;
They will not scorn my household stuff,
Or criticise my store.
Pass on—the world is wide enough;
I've shut my garden door.

Stand back, ye pumps, and let me wear,
The liberty I feel.
I have a coat at elbows bare,
I love its dishabille.
Within these precincts let me rove
With Nature, free from state;
There is no tinsel in the grove;
I've shut my garden gate.

What boots continual glare and strife?
I cannot always climb;
I would not struggle all my life;
I need a breathing time.
Pass on—I've sanctified these grounds
To Friendship, Love and Lore;
You cannot come within these boudoirs;
I've shut my garden door.

KEEP OUT OF DEBT.

Debt is the severest task-master. A person in debt is a doomed man. He is humiliated and despised; the very dogs bark at him as he passes along. A man in debt feels like an escaped outlaw—a villain of the first magnitude—and, what is worse, he feels there is no help for him. He does not dare to ask a favor, or refuse to bow and smile at his independent neighbor. If you are out of debt, young man, keep clear of its meshes. You had better do anything—dig clams or peddle books—stub boards or write sermons—make perpetual motion or edit a newspaper—do anything, but don't fall in debt. Shun the monster as you would shun a constable, the devil—in a deputy tax collector. Debt spreads the sky in sackcloth—digs a horrible pit before you—clouds the atmosphere—darkens the sun—destroys the harmony of nature—converts beauty and bloom to moulds and cobwebs—drives health from the cheek, peace from the heart, and makes the world a vast charnel-house of wasting sinews, broken bones and eyeless skulls. Who would not keep out of debt? If you have any self-respect, hope for an atom of peace or desire one moment's rest—avoid being in debt. Come not under its iron wing. Enter not its adamant jaw. Run from it as you would from plague, pestilence, and the horrors of the blackness of darkness. We speak from experience—but, thank God, a brighter day has dawned upon us. Young man, we pray you keep out of debt.

WOMAN.

When man has shut the door unkind
On pity, earth's divinest guest,
The wanderer never fails to find
A sweet abode in woman's breast.

DOMESTIC DEPARTMENT.

CHERRY JAM.—Take twelve pounds of good juicy cherries, stone and mash them as much as possible, put them in a pan and let them simmer gently till the juice is nearly dried up. Add three pounds of finely powdered sugar and the kernels; stir it all well together, and boil till it will drop off the spoon. This should be put in saucers or shallow jars.

TO PRESERVE GREEN GAGES.—They should be gathered when quite dry, and not too ripe. Put them in a preserving pan, with a layer of vine leaves under and over; cover with water, a small piece of alum, and the same of saltpetre. Simmer them very gently till green and tender; take them out carefully into a pan of cold water, drain in a cloth, and have ready a thin syrup to put them in. Boil the syrup every day, adding a little sugar, till of a proper thickness; the last day, put the gages in and boil for a few minutes.

APPLE JELLY.—Take a peck of nice juicy apples, pare and core them, put them in a pan with two quarts of water; boil them gently, but not too much; strain the juice through a bag or sieve; to every pint add three quarters of a pound of loaf sugar and the rind of a lemon pared very thin. Boil it twenty minutes or half an hour.

ANOTHER.—Take half a gallon of the greenest apples, pare and core them, put them in a pan with water to cover them, boil one hour, strain the juice, and to every pint add three quarters of a pound of sugar, the juice of two lemons, and the rind of one. Boil one hour.

DRIED CHERRIES.—Stone them, and to every pound of fruit take half a pound of sugar; put the cherries in an earthen pan, a layer of fruit and a layer of sugar; let them stand three days, then boil a few minutes. When cool, take them out of the syrup and drain them, spread them thin on hair sieves, and dry them in the sun. They should be turned every few hours, on clean sieves, till dry.

RASPBERRY VINEGAR.—Mix a quart of the best vinegar with two quarts of fine red raspberries; let it stand for nine days, or longer if not fermented; then strain them through a fine sieve, and to every pint of liquor add three quarters of a pound of fine sugar; simmer it gently, and finish by boiling quickly for twenty minutes. This makes a pleasant drink with cold water.

FIREPROOF CEMENT.—Take as much lime as is usual in making a pot full of whitewash, and let it be mixed in a pail full of water; in this put two and a half pounds of brown sugar and three pounds of fine salt. If one pound of alum be added it will greatly improve the cement. Mix it well and it is completed. A little lampblack, yellow ochre, or other coloring to change the appearance, may be introduced. It is used as a protection against fire, and is considered valuable. The French use it to preserve the roof and to protect it.

TO PROTECT GRAIN, ETC., FROM RATS.—Green elder boughs scattered in and about places where they are troublesome, it is said will protect effectually against depredations.

HEN'S EGGS.—Those that approach nearest to roundness produce females, while those that are more pointed produce males.

MAD DOGS, A PREVENTIVE.—Mix a small portion of the flour of sulphur with their food or drink. This has been known in Europe for centuries, and is used to prevent this disease from breaking out among the packs of hounds upon the estates of English noblemen.

CURE FOR THE BLACK TONGUE.—A handful of fine salt rubbed upon the tongue of a horse that has this disease, will effect a cure in two or three applications.

WHO IS TO BLAME!

If people grow thin and emaciated, and fairly die out by inches from the ravages of dyspepsia and indigestion, and who will pity such people in their distress and suffering, when they neglect to avail themselves of the only remedy yet discovered that will cure them, and which we have again and again repeated and recommended as a certain cure for dyspepsia—we refer to Coe's Dyspepsia Cure. It is certainly the greatest miracle of the age, for it cures all disorders of the stomach and bowels.

SEWING MACHINE FOR SALE.—A First class Wheeler & Wilson machine in good running order for sale low—\$60. Address X box 2716, St. Louis Postoffice, Mo.

The Great Strengthening Tonic.
(Not a Whisky Preparation.)

HOOFLAND'S GERMAN BITTERS

WILL CURE
DEBILITY! DEBILITY!
resulting from any cause whatever.
PROSTRATION OF THE SYSTEM,

INDUCED BY
**Severe Hardships,
Exposure,
OF Fevers,
DISEASES OF CAMP LIFE**
Soldiers, Citizens, Male or Female, Adult or Youth,

Will find in this Bitters a pure Tonic, not dependent on bad liquors for their almost miraculous effects.

DYSPEPSIA,
AND DISEASES RESULTING FROM DISORDERS OF THE LIVER AND DIGESTIVE ORGANS,

ARE CURED BY
HOOFLAND'S GERMAN BITTERS.
This Bitters has performed more Cures, gives better satisfaction, has more testimony, has more respectable people to vouch for it, than any other article in the market. We defy any one to contradict this assertion, and

WE WILL PAY \$1000
to any one who will produce a certificate published by us that is not genuine.

Hooftland's German Bitters,

Will cure every case of
Chronic or Nervous Debility,

and Diseases of the Kidneys.

Observe the following symptoms resulting from disorders of the digestive organs:

Constipation, Inward Piles, Fullness of Blood to the Head, Acidity of the Stomach, Nausea, Heartburn, Disgust for Food, Fullness or Weight in the Stomach, sour Eructations, Sinking or Fluttering at the Pit of the Stomach, Swelling of the Head, Hurried and Difficult Breathing, Fluttering at the Heart, Choking or Suffocating Sensations When in a Lying Posture, Dimness of Vision, Dots or Webs before the Sight, Fever and Dull Pain in the Head, Deficiency of Perspiration, Yellowness of the Skin and Eyes, Pain in the Side, Back, Chest, Limbs, &c., Sudden Flushes of Heat, Burning in the Flesh, Constant Imaginings of Evil, and Great Depression of Spirits.

REMEMBER,

That this Bitters is not Alcoholic, contains no Rum or Whisky, and cannot make Drunkards, but is the Best Tonic in the World.

From the Rev. E. D. Fendall, Assistant Editor Christian Chronicle, Philada.

I have derived decided benefit from the use of Hooftland's German Bitters, and feel it my privilege to recommend them as a most valuable tonic, to all who are suffering from general debility or from diseases arising from derangement of the liver.

Yours truly,
E. D. FENDALL.
From Rev. D. Merrige, Pastor of the Passyunk Baptist Church, Phila.

From the many respectable recommendations given to Dr. Hooftland's German Bitters, I was induced to give them a trial. After using several bottles, I found them to be a good remedy for debility, and a most excellent tonic for the stomach. D. MERRIGE.

BEWARE OF COUNTERFEITS.
See that the signature of "C. M. Jackson" is on the wrapper of each bottle.

Should your nearest druggist not have the article, do not be put off by any of the intoxicating preparations that may be offered in its place, but send to us, and we will forward, securely packed by express.

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HERMANN NURSERY.
 HUSMANN & MANWARING, Proprietors,
 HERMANN, MO.

Having much increased our business, we take pleasure in calling the attention of our friends, and the public generally, to our large and complete assortment of Fruit and Ornamental Trees and Shrubs comprising the choicest varieties of
 Apples, Pears, standard and dwarf; Cherries, standard and dwarf; Peaches, Plums, Apricots, Almonds, Quinces, Grapes, Currants, Gooseberries, Raspberries, Strawberries, Blackberries, Shade and Ornamental Trees and Shrubs, Evergreens, Vines and Creepers, Roses, Dahlias, and other Plants, Scions of Fruit Trees, Cuttings and Seedlings of Ornamental Trees, Shrubs, &c.

Most of the varieties were tested here, and have proved successful in our soil and climate, and all are warranted true to name.

We would call the special attention of Grape Growers to our large assortment of native hardy grapes, comprising over sixty of the choicest varieties, which we have spared no pains nor cost to procure from the most reliable sources. Many of them have been tested here, and all will be tested in the open vineyard, and we shall recommend none until we have found them successful. This we may now confidently do with Norton's Virginia, Herbmout, Missouri and Concord, they having been tested beyond a doubt.

Descriptive Catalogues sent gratis to all applicants. Orders directed to us personally or to our local agents, will be promptly and carefully filled.

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Norton's Virginia, Concord, Herbmout, Delaware, Cunningham, Cassady, Clinton, Hartford Prolific and Catawba, by the case, containing 1 dozen bottles each. Norton's Virginia, Concord and Catawba, also by the keg, barrel or cask.

As these wines were all grown on my own vineyards, and carefully managed, I can warrant them to be of superior quality and to give general satisfaction.

Sample cases, containing one dozen bottles assorted of all the above varieties, will be put up if desired.
 Address, GEO. HUSMANN, Hermann, Mo.

PRICE LIST OF WINES,

Grown by
GEORGE HUSMANN, GRAPE HILL VINEYARDS, NEAR HERMANN, MO.

In cases of one dozen bottles each—

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| Norton's Virginia, first quality, | \$18.00 |
| Concord, first quality, | 12.00 |
| Concord, second quality, very good, | 10.00 |
| Herbmout, first quality, | 18.00 |
| Delaware, first quality, | 24.00 |
| Cunningham, first quality, | 18.00 |
| Cassady, first quality, | 12.00 |
| Clinton, | 10.00 |
| Hartford Prolific, | 16.00 |
| Catawba, first quality, | 10.00 |
| Catawba, second quality, very fair, | \$ 8.50 |

In cases, in quantities under forty gallons—

| | |
|-----------------------------------|--------------------|
| Norton's Virginia, first quality, | \$4.50 per gallon. |
| Concord, first quality, | 3.00 " |
| Concord, second quality, | 2.50 " |
| Catawba, first quality, | 2.50 " |
| Catawba, second quality, | 2.00 " |
| Herbmout, first quality, | 4.50 " |

In quantities over forty gallons—

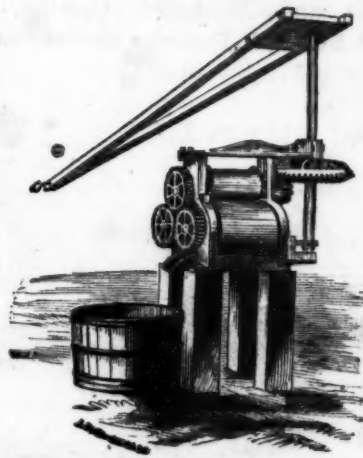
| | |
|-----------------------------------|--------|
| Norton's Virginia, first quality, | 4.00 " |
| Concord, first quality, | 2.50 " |
| Concord, second quality, | 2.00 " |
| Catawba, first quality, | 2.00 " |
| Catawba, second quality, | 1.75 " |

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HARRIS' PATENT Self-Regulating,



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In these celebrated mills the CANE is made to govern the pressure, and give a uniform pressure in proportion to the amount of cane going through the mill. The SELF-REGULATING PRESSURE removes ALL DANGER of breaking by uneven feeding, and increases the capacity fully one-third above other mills of the same size. It presses a LARGE or SMALL amount of cane EQUALLY DRY BY ITS OWN ACTION.

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THE GREAT FEMALE REMEDY FOR
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These drops are a scientifically compounded fluid preparation, and better than any Pills, Powders, or Nostrums. Being liquid, their action is direct and positive, rendering them a reliable, speedy and certain specific for the cure of all obstructions and suppressions of nature. Their popularity is indicated by the fact that over 100,000 bottles are annually sold and consumed by the ladies of the United States, every one of whom speak in the strongest terms of praise of their great merits. They are rapidly taking the place of every other Female Remedy, and are considered by all who know aught of them, as the surest, safest and most infallible preparation in the world, for the cure of all female complaints, the removal of all obstructions of nature, and the promotion of health, regularity and strength. Explicit directions stating when they may be used, and explaining when and why they should not, nor could not be used without producing effects contrary to nature's chosen laws, will be found carefully folded around each bottle, with the written signature of JOHN L. LYON, without which none are genuine.

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KNITS A STOCKING
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Knitting the Heel and Narrowing off the Toe as it goes along.

IT SETS UP ITS OWN WORK;

KNITS ANY SIZE, from two loops, forming a cord, up to its full capacity;

WIDENS AND NARROWS, by varying the number of loops, and

Knits the Wide Single Flat Web

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No other machine in the world can do any one of these things!

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Shawls,

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Different Articles.

Knits a yard of plain work in TEN minutes; a pair of socks complete in half an hour.

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Every Machine warranted to work as represented.

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No. 24 North 5th Street, St. Louis,
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General Agents for the West and South-west.

Barnum & Bro's. Missouri Agricultural Warehouse and Seed Store, St. Louis, Mo.

No. 26. South Main Street, SIGN of the OX YOKE hangs directly over the door, 3 doors north of Walnut Street.

WHOLESALE AND RETAIL DEALERS IN

 Agricultural Implements and Machines, Garden, Grass and Field Seeds. 

AGENTS for CHAMPION of OHIO REAPERS & MOWERS. Exclusive Agents in St. Louis for Celebrated ROCK ISLAND PLOWS.



Our stock of Garden Seeds is fresh and pure, and will be furnished in any quantity desired.

Among our numerous articles, are:

Vandiver's Missouri Corn Planter.
Buckeye Sulky Corn Plow.
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Sulky Hay Rakes.
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Cutting Boxes.

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VICTOR SORGHUM MILLS

COOK'S EVAPORATORS.

And a vast variety of farming tools.

Our Garden Seeds are supplied in papers, neatly put up, with directions for cultivating, or in bulk.

Merchants supplied with any size boxes of Assorted Seeds Desired.

FREEMAN BARNUM.
ROBT. C. BARNUM.

Send for Illustrated Catalogue and Gardener's Almanac for 1866.

Barnum & Bro., 26 South Main St., Saint Louis, Mo.

FRESH TURNIP SEEDS.

BY MAIL POSTPAID.

The following varieties—the VERY BEST IN CULTIVATION—will be sent to any address by mail, prepaid, or by express. Seed and Nursery Catalogues will be sent gratis to order. Wholesale Catalogues are now ready for the trade. Agents wanted.

Price 10 cents per ounce; \$1 per pound.

Strap Leaf White Dutch, Fall and Winter.
Red Top Strap Leaf, "
Orange Jelly, or Golden Ball, Winter.
Long White French or Hanover, "
Skirving's Imp'd Ruta Baga, "
German Teltow, "
New White Sweet German, the finest late keeper and the best table turnip in cultivation.
Also, Beet, Cabbage, Carrot, Onion, Parsnip, and all other seeds in small or large quantities.

B. M. WATSON,

Old Colony Nurseries and Seed Establishment,
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July 1—2t

TAKE Your CHOICE!

We have already given away more than TWO HUNDRED

Sewing Machines, as premiums for New Subscribers; and we are still sending them. We have not had the first complaint in regard to the Machines. All are pleased.

Send the names as fast as you obtain them with the money, by check, draft or post-office order. Sample copies and circulars sent to any address FREE.

Terms, \$3.50 a year in advance.

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Dr. Jackson's BLOOD AND HUMOR SYRUP

will positively cure SCROFULA, ERYSIPELAS, DYSPEPSIA, INDIGESTION, HEARTBURN or any HUMOR in the BLOOD or STOMACH, and for PURIFYING the SYSTEM and ERADICATING all TRACES of DISEASE this remedy has no equal, and for BUILDING up the SYSTEM, and giving new STRENGTH and VIGOR—its unparalleled success since its introduction, and the wonderful cures it has and is daily performing are its best guarantee, and we earnestly desire that every sufferer shall give it a trial.

Sold by all Druggists. Price one dollar a bottle.

COLLINS BROTHERS,

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Proprietors.

ITCH! ITCH!!

SALT

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SALT

RHEUM!

Will cure the ITCH or SALT RHEUM.

in a few applications. It also cures prairie Scratches, Chills, Ulcers and all Eruptions of the skin where other remedies have been tried in vain, cures speedily and thoroughly. Price 50 cents a box. Sold by all druggists. By sending 60 cents in a letter to COLLINS BROTHERS, S. W. cor. 2d & Vine streets, St. Louis, Mo., it will be sent by mail free of postage. April 15—1y.

TURNIP SEEDS, &C.

BY MAIL, POSTAGE PAID.

All Warranted of the First Quality.

| | lb. | oz. |
|---------------------------|--------|-----|
| Early White Dutch Turnip, | \$1.00 | |
| White Strap Leaf, " | 1.00 | |
| Red Top Strap Leaf, " | 1.00 | |
| Long White Cow Horn, " | 1.00 | |
| Large White French, " | 1.00 | |
| Long White Tankard, " | 1.00 | |
| Large White Norfolk, " | .75 | |
| Large White Globe, " | .75 | |
| German Teltow, " | 2.00 | |
| Yellow Stone, " | 1.00 | |
| Yellow Aberdeen, " | 1.00 | |
| Yellow Finland, " | 2.50 | |
| Golden Ball, very fine, " | 1.00 | |
| Improved Ruta-Baga, " | 1.00 | |
| Laing's, " | 1.00 | |
| Skirving's, " | .75 | |

ALSO,

| | lb. | oz. | cts. |
|-------------------------------------|-----|-----|--------|
| White Spined Cucumbers for Pickles, | 15 | | \$1.50 |
| Green Curled Endive, " | 30 | | 3.00 |
| Corn Salad, " | 15 | | 1.50 |
| Hardy Green Lettuce, " | 30 | | 3.00 |
| Brown Winter Lettuce, " | 30 | | 3.00 |
| Yellow Summer Turnip Radish, " | 15 | | 1.50 |
| Black Fall Radish, " | 15 | | 1.50 |
| Scarlet Chinese Winter Radish, " | 30 | | 4.00 |
| Round Leaf Spinach, " | 10 | | .75 |
| Large Flandre, " | 10 | | .75 |
| Prickly, " | 10 | | .75 |

Trade Price Lists on Application.

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15 John Street, New York.

July 1—2t

Fall of '66. Spring '67.

OSAGE Orange Hedge Plants, first class, retail \$5.00 per 1,000; by the 100,000, \$4 per 1,000, and by the million, a liberal discount. There will be furnished with each lot of plants, printed directions telling how to make a Hedge, based upon eighteen years of practical experience. Good responsible Agents wanted. apl-15] W. H. MANN, Box 100, Normal, Ill.

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R. A. Huffard,

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High Street, Jefferson City, - - - Missouri.

Will keep constantly on hand,

GARDEN, GRASS AND OTHER SEEDS,

Peoria, Rock Island, Clipper, and other Plows,

Harrows, Horse Rakes,

Straw and Hay Cutters,

Churns, Spades, Shovels, Forks,

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SULKY AND GANG PLOWS.

Agent for the Sale of

Leather and Rubber Belting,

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And Lace Leather.

PORTABLE PLANTATION GRIST MILLS.

Pumps of all kinds, Wool Carding Machines,

Cider and Wine Mills. Also, Agent for

All kinds of Fruit Trees, Shrubbery,

Evergreens, Roses, &c.

Any article not on hand when called for will be ordered immediately.

"WATERLOO."

The above named Race Horse and Stallion will stand the present season on the premises of Dr. W. W. Henderson, on the Natural Bridge Plank Road, near Bridgton, 12 miles from St. Louis, and will serve Mares at Twenty-Five Dollars the season—money to be paid at time of service rendered and before removing the mare. Pasturage will be furnished for animals from a distance at \$2 per week, to be at risk of owner.

PEDIGREE AND DESCRIPTION.

"Waterloo" was foaled in 1856, and is now eleven years of age. Was sired by Imp. Yorkshire—he by St. Nicholas, and he by Emeline. His dam is Topaz, by Imp. Glencoe. 2d. Dam, Emerald by Imp. Levathan. 3d. Dam Imp. Eliza by Imp. Reuben.



He is a dark bay, 15½ hands high, of immense power and great endurance, as his many well contested races have abundantly established. His distinguished brothers, Wagram, Austerlitz, Lodi and Colton, have added no less than himself to the renown of his immediate progenitors—Yorkshire and Topaz. apl 15-3m.

ECONOMY IS WEALTH—[FRANKLIN.]

Why Pay

\$50 or \$100 for a Sewing Machine,

WHEN \$25

 Will buy a better one 

For all practical purposes? Notwithstanding reports to the contrary, the subscribers beg to inform their numerous friends that the

"Franklin" and "Medallion"



SEWING MACHINES

Can be had in any quantity. This Machine is constructed upon entirely new principles, and does not infringe upon any other in the world. It is emphatically the poor man's Sewing Machine, and is warranted to excel ALL others, as our patrons will testify. Agents Wanted. Address,

JAMES C. OTTIS & CO., Boston, Mass.
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St. Louis Agricultural Warehouse and Seed Store,

[Established 1845, by Wm. M. Plant.]

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NO. 25 NORTH MAIN STREET,
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Plant & Brother,

Wm. M. PLANT.]

Wholesale and Retail Dealers in and Manufacturers' Agents for the Sale of



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Leather and Rubber Belting, Hose, Steam Packing.

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 WOOL CARDING MACHINES, COACH SCREWS, STORE TRUCKS, 

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Krauser's Improved Portable Cider Mill and Press.

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Selby's double check row CORN PLANTER.

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PALMER'S EXCELSIOR HORSE HAY HOISTING FORK.

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Also, a full supply of Warranted Fresh and Genuine
GARDEN, GRASS & OTHER SEEDS, growth of 1865.

All of which we offer at the lowest possible CASH PRICES.

Call and get Illustrated Catalogue furnished Gratis.

St. Louis, Mo., Feb. 1866.

PLANT & BRO.

H. H. HOAG,

WHOLESALE,

Fruit Dealer,

And General Commission Merchant for the Sale of


Foreign and Domestic Fruits,
Native Wines,

And General Produce,

No. 60 NORTH THIRD STREET,

Opposite Post Office, St. Louis, Mo.

Refers by permission to the following parties in this city: Messrs. Ratcliffe & Brown, Commercial Brokers and General Commission Merchants; Messrs. Harlow, Clark & Co., General Commission Merchants; Messrs. Sigerson & Brink, Real Estate Agents; N. J. Colman, Editor and Proprietor Rural World and Valley Farmer.

 How to prepare produce for shipping:

Prepare the packages, that they may endure rough usage without damage. Mark the Consignee's name plainly upon each package, the Consignor's name underneath, the number of packages shipped, and the amount contained in each package, if necessary—of which the Consignor is the best judge. Take a receipt, if one will be given, and enclose it by mail to the Consignee. Shippers, by following the above directions, will prevent confusion and facilitate the transaction of business, and have returns without delay.

H. H. HOAG, 60 North Third St.,
May 15. St. Louis, Mo.

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SAINT LOUIS NURSERY!

On the Olive Street Road, 5 miles West of the Court House.

It contains the largest and choicest stock of



Home Grown

FRUIT TREES,

Shade Trees, Ornamental Shrubs,
Evergreens,

Grape Vines, SMALL FRUITS, ETC.

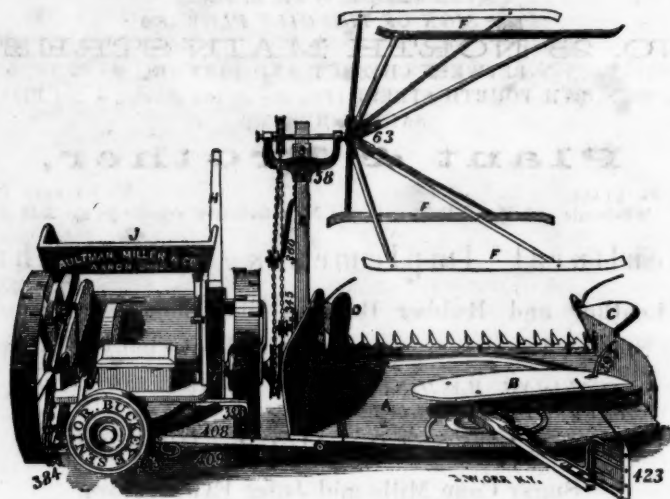
IN THE WEST.

The varieties are all guaranteed to be adapted to our soil and climate.

The City Office of the Nursery is at 97 Chesnut St., in the Office of "COLMAN'S RURAL WORLD."

Address, NORMAN J. COLMAN,
St. Louis, Mo.

The Buckeye Reaper and Mower!



(Our Motto—Hoist your own colors and sail under them.)

It is a strange fact, that of late, a number of Reaping and Mowing Machines sail under the colors of the Buckeye. They either call their Machines the Improved Buckeye, or they say "as good a Machine as the Buckeye."

We shall not dwell upon this point, but will simply state, that we claim nothing of any other Machine, ours is the

GENUINE BUCKEYE MOWER & REAPER,

Manufactured by the well-known firms of C. Aultman & Co., and Aultman, Miller & Co.

The Buckeye is the head of all Reapers and Mowers without equal. We caution our friends and the farming community at large not to be deceived by any representation of any Machine claiming to have the improved Buckeye, or as good a Machine as the Buckeye, &c.

If you want the genuine Buckeye, with all the improvements, true to its name, and a Machine that will do your work nice and clean, with easy management, light for your horses, strong and durable, put up in the most workman-like manner, then call at No. 56 North Second Street, St. Louis, Mo., there you can see the GENUINE BUCKEYE MOWER AND REAPER, with Hand and Self-Rake and the Improved Dropper Attachment.

TEND YOUR CORN WITH THE

Hawkeye Corn Cultivator,

Which took the First Premium over 33 Machines at Chicago, Sept. the 4th to 9th, 1865, and over 23 Machines at the Iowa State Fair, Sept. 26th to 30th, 1865.

Send for Circulars for

CIDER AND WINE MILLS, SUGAR MILLS AND EVAPORATORS,

And Agricultural Implements in General.

WM. KOENIG & CO.,

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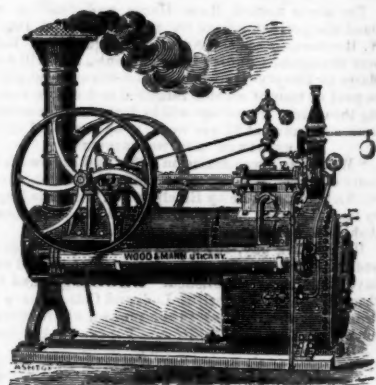
No. 56 North Second Street, St. Louis, Mo.

[Written for Colman's Rural World.]

What is Wanted in Winter.

A small room, a large stove, and dry wood. The room should be tight, with double windows, walls well papered and floor carpeted, with paper under the carpet. Paper is warm, and should be more used for protection from cold. (Put between blankets, it forms a warm, light covering.) A room thus prepared is a guard against cold, especially if the door is guarded by a stoop or portico, or opens in a hall. One of the outside windows should be put on hinges, so as to be swung open when wanted. I have tested all this for ten years, and my room is the most uniform in temperature and most comfortable in town. I have a thermometer to aid me. This I consult oftener than the clock from habit. I thus do with a third less wood than I did before these precautions were taken. I can defy the cold and the changes in the weather. My stove is an air-tight, with a damper in the pipe. I can control it perfectly. Frost never disturbs me, as one good stick on a bed of coals will keep my room warm, and give me live coals in the morning. But my wood wants to be maple or birch or hickory to do this readily. How much suffering there is in the world on account of a lack of these precautions. Use the paper and the double windows; and do not forget the large stove, which costs less wood, incredible as it seems, than a small one. F.G.

WOOD & MANN STEAM ENGINE CO.'S CELEBRATED Portable Steam Engines,



From 4 to 35 horse power.

Also, PORTABLE SAW MILLS

We have the oldest, largest and most complete works in the United States, devoted exclusively to the manufacture of Portable Engines and Saw Mills, which, for simplicity, compactness, power and economy of fuel, are conceded by experts to be superior to any ever offered to the public.

The great amount of Boiler room, fire surface, and cylinder area, which we give to the rated horse power, make our Engines the most powerful and cheapest in use; and they are adapted to every purpose where power is required. All sizes constantly on hand, or furnished on short notice.

Descriptive Circulars with Price List, sent on application.

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July 1—1y